ORDER NO. GAD84085441A2

RX-C52L

Service Manual

Radio Cassette

Portable Stereo Component System

RX-C52L

(Silver)

This is the Service Manual for the following areas.

G ...For West Germany.

- Please use this manual together with the service manual for model No. RX-C52L order No. GAD84075441C2.
- This service manual indicates the main differences between; Original RX-C52L Z and RX-C52L G for West Germany.

CHANGE OF PARTS

■ PARTS COMPARISON TABLE

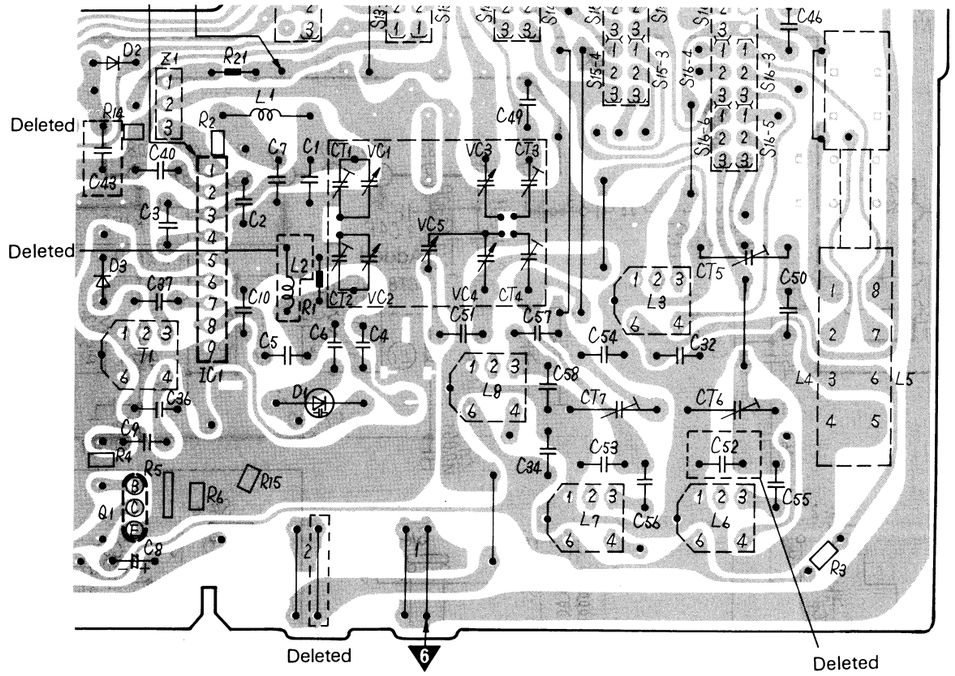
NOTES:

1. Important safety notice.
   Components identified by ⚠ mark have special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.

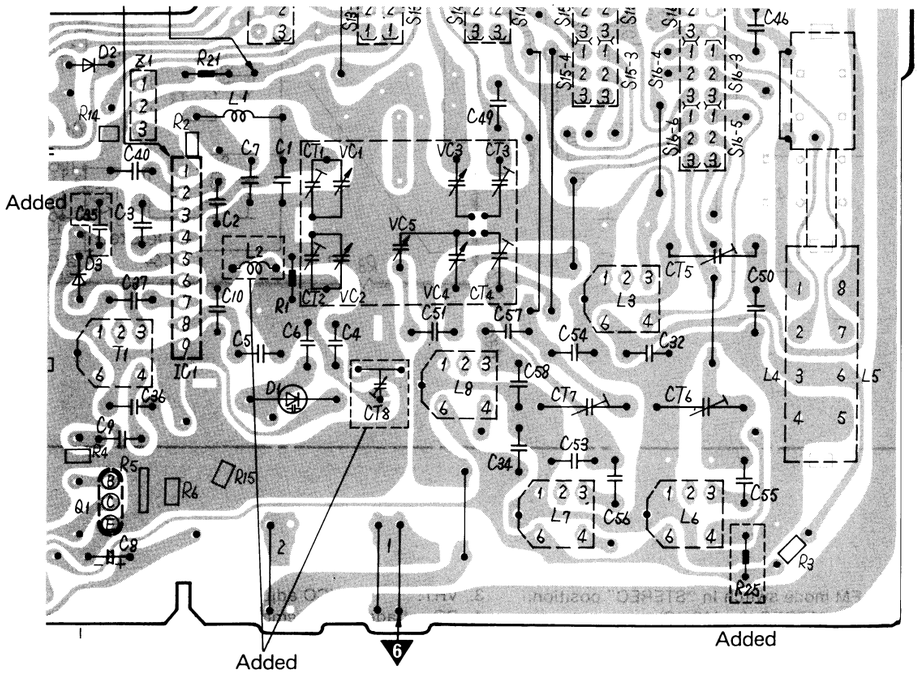
Ref. No.	Description	Part Number		Remarks
		RX-C52L Z (Original)	**RX-C52L G**	
K1	Front Cabinet Ass'y	RYM1XC52LZ	**RYM1XC52LZG**	
K2	Rear Cabinet Ass'y	RYF1XC52LZ91	**RYF1XC52LG91**	
K2-6	Terminal, EXT Antenna	RJF1065Z	——	Deleted
E30	Terminal, Antenna	RJT833Z	**RJT833Z**	Subtracted (2→1)
E32	Terminal, EXT Antenna	RJT849Z	——	Deleted
L2	Oscillator Coil, FM	RLD4Y53	**RLO4N192**	Changed
L109, 110	Choke Coil	——	**RLQZZ4701**	Added ⚠
R25	Resistor 1500Ω	——	**ERDS2TJ152**	Added
CT8	Trimmer Capacitor	——	**RCVCTZ53C117**	Added
C1	Capacitor 22pF	ECCD1H200JC	**ECCD1H220KC**	
C4	Capacitor 5pF	ECCD1H120KC	**ECCD1H050CU**	
C35	Capacitor 330pF	——	**ECCD1H331K**	Added
C43	Capacitor 330pF	ECCD1H331K	——	Deleted
C52	Capacitor 5pF	ECCD1H050C	——	Deleted
C54	Capacitor 2pF	ECCD1H020C	——	Deleted

SCHEMATIC DIAGRAM AND CIRCUIT BOARD DIAGRAM FOR MODEL RX-C52L

■ TUNER SECTION



RX-C52L Z (ORIGNAL)



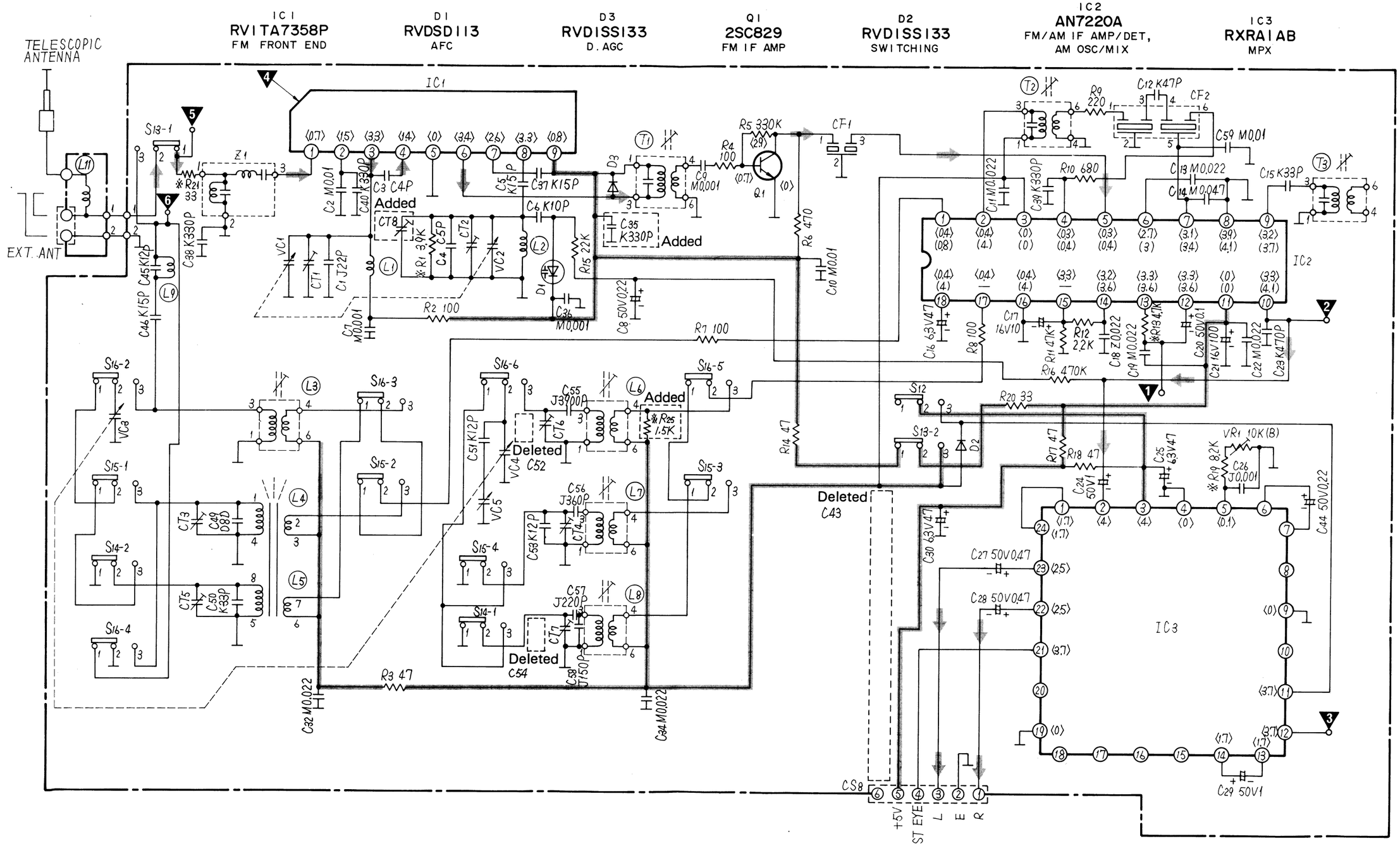
RX-C52L G

▼ Be sure to fold at the (▼) mark so that mark is on the outside.

Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

■ TUNER SECTION [RX-C52 G]



Notes:

1. S12: FM mode switch in "STEREO" position. (1...STEREO, 3...MONO)
2. S13~S16: Band switch in "FM" position. (S13-1, S13-2...FM, S14-1, S14-2...LW, S15-1~S15-4...MW, S16-1~S16-4...SW)
3. VR1: VCO adjustment VR.
4. DC voltage measurement are taken with electronics voltmeter from negative terminal of battery.
   < >...FM, ( )...MW
5. For resistors, using printed types except those with ※ mark.

+ Ⓑ Voltage Line.
Radio (FM) Signal Line.

RX-C52L DEUTSCH

■ TECHNISCHE DATEN

Allgemeines:

Stromversorgung:	Wechselstrom: 220V, 50Hz Batterien: 12V (acht Trockenbatterien der Größe "D") (Panasonic UM-1 oder gleichwertige) Autobatterie: mit als Sonderzubehör erhältlichen Autobatterieadapter RP-952
Leistungsaufnahme:	27W (bei Netzbetrieb)
Ausgangsleistung:	15W (7,5W×2)...(max.)
Lautsprecher:	Tieftonlautsprecher: dynamischer PM-Lautsprecher, ϕ10cm (3Ω) Hochtonlautsprecher: keramischer Lautsprecher, ϕ3cm (400Ω)
Eingang:	MIC: Empfindlichkeit 0,25mV/ Mikrofonimpedanz 200~600Ω PHONO: Empfindlichkeit 5mV/47kΩ mind. LINE IN: Empfindlichkeit 200mV/47kΩ mind. DC IN: 13,2V
Ausgang:	LINE OUT: Empfindlichkeit 360mV/ 4,7kΩ höchst. EXT SP: 3~8Ω HEADPHONES: 32Ω
Abmessungen:	549mm(B)×153mm(H)×152mm(T) Haupteinheit 321mm(B)×153mm(H)×152mm(T) Lautsprecherbox 120mm(B)×153mm(H)×134mm(T)
Gewicht:	5,2kg ohne Batterien

Empfangsteil:

Wellenbereiche:	UKW: 87,5~108MHz LW: 150~285kHz (2000~1053m) MW: 520~1610kHz (577~186m) KW: 5,9~18MHz (50,8~16,7m)
Zwischenfrequenz:	UKW: 10,7MHz MW: 455kHz
Empfindlichkeit:	UKW: 2,6μV (–3DB Grenzempf.) LW: 74μV/m/Ausgangsleistung 50mW MW: 40μV/m/Ausgangsleistung 50mW KW: 2,7μV/Ausgangsleistung 50mW

Tonbandteil:

Frequenzgang:	40~12.000Hz (Normalband) 40~16.000Hz (Metallband)
Aufnahmesystem:	Wechselstrom-Vormagnetisierung, Wechselstrom-Löschung
Bandgeschwindigkeit:	4,8cm/s
Spieldauer:	1 Stunde mit Cassette C-60
Spurlage:	Stereo-Aufnahme und -Wiedergabe auf 4 Spuren/2 Kanälen

Änderungen vorbehalten.

BEZEICHNUNGEN IN DER SCHEMATISCHEN DARSTELLUNG

Bemerkungen:

1. S1~S3: Funktionsschalter auf "TAPE". (S1-1~S1-6...TAPE, S2-1, S2-2...RADIO, S3-1, S3-2...LINE/PHONE)
2. S4: Dolby-Rauschunterdrückungsschalter auf "OUT". (1...OUT, 3...IN)
3. S5-1~S5-6: Bandsortenwahlschalter auf "NORMAL". (1...NORMAL, 3...METAL)
4. S6-1, S6-2: Betriebsschalter auf "ON". (1...ON, 3...OFF/SLEEP)
5. S7: Timer-Bereitschaftsschalter auf "RECORD". (1...RECORD, 2...OFF, 3...PLAY)
6. S8: Wechselstrom/Gleichstrom-Wahlschalter auf "AC".
7. S9: Interferenzschutzschalter.
8. S11-1~S11-4: Eingangsschalter auf "LINE IN". (1...LINE IN, 3...PHONO)
9. S12: UKW-Betriebsartenschalter auf "STEREO". (1...STEREO, 3...MONO)
10. S13~S16: Wellenbereichsschalter auf "FM". (S13-1, S13-2...UKW, S14-1, S14-2...LW, S15-1~S15-4...MW, S16-1~S16-4...KW)
11. S401: Stoppschalter.
12. S402: Pauseschalter.
13. S403: Aufnahme-Muting-Schalter.
14. S404: Vorlaufschalter.
15. S405: Rücklaufschalter.
16. S406: Schnellvorlauf/TPS-Schalter.
17. S407: TPS/Rücklaufschalter.
18. S408: Aufnahmeschalter.
19. S409~S411: Bandlaufrichtungsschalter. (S409...wiederholte beidseitige Wiedergabe oder Aufnahme, S410...beidseitige Wiedergabe oder Aufnahme, S411...einseitige Wiedergabe oder Aufnahme)
20. S412-1, S412-2: 1-Programm-Wiederholungsschalter auf "OFF". (1...OFF, 3...ON).
21. S413: Auswurfschalter.
22. S414-1~S414-3: Drehschalter.
23. S415, S416: Aufnahmeprüfschalter.
24. S417: Schlafzeitschalter.
25. S418: Schnellvorlauf/Rücklaufschalter.
26. VR1: VCO-Einstell-VR.
27. VR101, 201: Vormagnetisierungsstrom-Einstell-VR.
28. VR103: Mischpegelregel-VR.
29. VR105, 205: Wiedergabepegeleinstell-VR.
30. VR106: Löschstromeinstell-VR.
31. VR107, 108: Gesamtverstärkungseinstell-VR.
32. VR181, 281: Tiefenregel-VR.
33. VR182, 282: Höhenregel-VR.
34. VR183, 283: Lautstärkeregel-VR.
35. VR184: Balanceregel-VR.
36. Gleichspannungsmessungen erfolgen mit einem Elektronikvoltmeter vom negativen Batteriepol. [ ]...Aufnahme, < >...UKW, ( )...MW
37. Batteriestrom: Kein Signal 177mA
    Max. Ausgangsleistung (Radio) 1,25A
    Max. Ausgangsleistung (Band).....1,27A
38. Außer mit ※ gekennzeichneten Widerständen gedruckte Widerstände verwendet.

ABGLEICH

■ VORGANGSWEISE BEIM ABGLEICH

BITTE DIESEN ABSCHNITT VOR DEM ABGLEICH SORGFÄLTIG DURCHLESEN

1. Den Lautstärkeregler in die Maximalposition stellen.
2. Den Timer-Bereitschaftsschalter auf "OFF".
3. Den Balanceregler, Baßregler und den Höhenregler in die Mittelposition stellen.
4. Den Betriebsschalter auf "ON".
5. Den Wellenbereichsschalter auf LW, MW, KW order UKW stellen.
6. Den Funktionsschalter auf „radio" stellen.
7. Eine Gleichspannung von 12V anlegen.
8. Der Signalgeneratorausgang sollte nicht größer sein, als für eine Ausgangsanzeige unbedingt notwendig ist.

■ LW-, MW- und KW-ABGLEICH

	WELLENBAND	SIGNALGENERATOR oder WOBBELGENERATOR ANSCHLÜSSE	SIGNALGENERATOR oder WOBBELGENERATOR FREQUENZ	STELLUNG DES ABSTIMMREGLERS	MESSGERÄT (ELEKTRONIK-VOLTMETER oder OSZILLOSKOP)	ABGLEICH	BEMERKUNGEN
			AM-ZF-ABGLEICH				
(1)	MW	Aus einem Draht einige Schleifenwindungen bilden und das Signal in die Empfängerschleife abstrahlen.	455kHz, 30% mod. (Modulationsfrequenz 400Hz)	Der Abstimmpunkt, wo keine Interferenz auftritt. (ungefähr bei 600kHz)	Ausgangsleistungsmesser parallel zur Lautsprecher-Schwingspule.	T2 (AM-ZF-Abgleich)	Die maximale Ausgangsleistung einstellen.
			LW-HF-ABGLEICH				
(2)	LW	〃	136kHz	Drehkondensator ganz geschlossen.	〃	L8 (LW-Oszillatorspule)	〃
(3)	LW	〃	297kHz	Drehkondensator ganz aufgedreht.	〃	CT7 (LW-Oszillatortrimmer)	〃
(4)	LW	〃	145kHz	Das Signal abstimmen.	〃	(＊1) L5 (LW-Antennenspule)	Die maximale Ausgangsleistung einstellen. L5 durch Verschieben am Ferritkern abgleichen.
(5)	LW	〃	285kHz	〃	〃	CT5 (LW-Antennentrimmer)	Die maximale Ausgangsleistung einstellen. Die Schritte (2) bis (5) wiederholen.
			MW-HF-ABGLEICH				
(6)	MW	〃	511kHz	Drehkondensator ganz geschlossen.	〃	L7 (MW-Oszillatorspule)	Die maximale usgangsleistung einstellen.
(7)	MW	〃	1.650kHz	Drehkondensator ganz aufgedreht.	〃	CT4 (MW-Oszillatortrimmer)	〃
(8)	MW	〃	550kHz	Das Signal abstimmen.	〃	(＊1) L4 (MW-Antennenspule)	Die maximale Ausgangsleistung einstellen. L4 durch Verschieben am Ferritkern abgleichen.
(9)	MW	〃	1.500kHz	〃	〃	CT3 (MW-Antennentrimmer)	Die maximale Ausgangsleistung einstellen. Die Schritte (6) bis (9) wiederholen.
	(＊1) Nach beendetem Abgleich ist der Antennenspulenkörper mit Wachs zu befestigen.						
			KW-HF-ABGLEICH				
(10)	KW	Über einen Keramikkondensator (10pF) an den Meßpunkt ⑥ anschließen.	5,75MHz	Drehkondensator ganz geschlossen.	〃	L9 (KW-Oszillatorspule)	Die maximale usgangsleistung einstellen.
(11)	KW		18,8MHz	Drehkondensator ganz aufgedreht.	〃	CT6 (KW-Oszillatortrimmer)	〃
(12)	KW		5,9MHz	Das Signal abstimmen.	〃	L3 (KW-Antennenspule)	〃

■ UKW-ABGLEICH

	WELLENBAND	SIGNALGENERATOR oder WOBBELGENERATOR: ANSCHLÜSSE	SIGNALGENERATOR oder WOBBELGENERATOR: FREQUENZ	STELLUNG DES ABSTIMMREGLERS	MESSGERÄT (ELEKTRONIK-VOLTMETER oder OSZILLOSKOP)	ABGLEICH	BEMERKUNGEN
	UKW-ZF-ABGLEICH						
(1)	UKW	Über einen 0,001μF-Kondensator an den Meßpunkt 4 anschließen.	10,7MHz (SWP.)	Der Abstimmpunkt, wo keine Interferenz auftritt (ungefähr bei 90MHz).	Die Vertikalamplitude des Oszilloskops an den Meßpunkt 2 anschließen.	T1 (1. UKW-ZF-Abgleich)	Die Maximalamplitude einstellen. (Siehe Abb. 4.)
(2)	UKW	〃	〃	〃	〃	T3 (2. UKW-ZF-Abgleich)	Die Maximalamplitude einstellen. (Siehe Abb. 5.)
	UKW-HF-ABGLEICH						
(3)	UKW	Über eine künstliche UKW-Antenne an den Meßpunkt 5 anschließen.	87,38MHz	Drehkondensator ganz geschlossen.	Ausgangsleistungsmesser parallel zur Lautsprecher-Schwingspule.	L2 (UKW-Oszillatorspule)	(*2) Die maximale Ausgangsleistung einstellen.
(4)	UKW		108,31MHz	Drehkondensator ganz aufgedreht.	〃	(*3) CT8 (UKW-Oszillatortrimmer)	〃
(5)	UKW		90MHz	Das Signal abstimmen.	〃	L1 (UKW-Antennenspule)	〃
(6)	UKW		106MHz	〃	〃	CT1 (UKW-Antennentrimmer)	(*2) Die maximale Ausgangsleistung einstellen. Die Schritte (3) bis (6) wiederholen.
	(*2) Es gibt drei verschiedene Ausgangsfrequenzkurven. Stimmen Sie die Mittelfrequenz ab.						
	(*3) CT2 ganz geschlossen..						

■ KANAL TRENNUNGSABGLEICH

GEGENSTAND	UKW-MESSENDER SOURCE-ANSCHLUSS	GERÄTEANSCHLUSS (ELEKTRONISCHER ZÄHLER)	EINSTELLUNG	ANGABEN	BEMERKUNGEN
Einstellung des Pilottons	98MHz, 60dB	3 .....(+) Masse...(−)	VR1	19kHz	Mit dem elektronischen Zähler den Spannungskonstanthalter (VR1) auf 19kHz (±0.1kHz) einstellen.

■ AUDIO-ABGLEICH

GEGENSTAND	EINGANG	MESSPUNKT	MESSWERT	EINSTELL-PUNKT	BEMERKUNGEN
Azimut	QZZCFM (8kHz, −20dB)	LINE OUT oder SP	Die maximale Ausgangsleistung einstellen.	Azimut-Einstellschraube	bei Wiedergabe
Wiedergabepegel	QZZCFM (315Hz, 0dB)	103 ...(linker Kanal) 203 ...(rechter Kanal) 104 ...(Masse)	0.42±0.02V	VR105 (linker Kanal) VR205 (rechter Kanal)	bei Wiedergabe
Löschstrom	für Reineisenband	105 ...(+) 205 ...(−)	150^{+10}_{-5}mV	VR106	bei Aufnahme
Vormagnetisierungsstrom	für Reineisenband	101 ...(linker Kanal) 201 ...(rechter Kanal) 101 ...(Masse) 102 ...(Masse)	Metal 9±1,5mV Normal 4,5±0,2mV	VR101 (linker Kanal) VR201 (rechter Kanal)	bei Aufnahme: Oszillator → II Bandsortenwähler... Reineisen

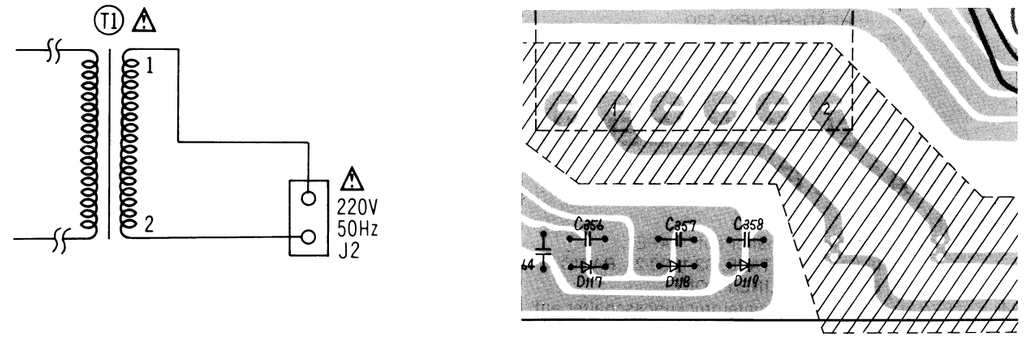
GEGENSTAND	EINGANG	MESSPUNKT	MESSWERT	EINSTELL-PUNKT	BEMERKUNGEN
Verstärkung insgesamt	LINE IN f = 1kHz, −24dB	103 ...(linker Kanal) 203 ...(rechter Kanal) 104 ...(Masse)	0±1dB	VR107 (linker Kanal) VR108 (rechter Kanal)	1. Das vorgeschriebene Eingangssignal aufzeichnen und den Ausgangspegel ablesen. 2. Unter Verwendung des Ausgangspegels in Schritt 1 als 0-dB-Pegel so einstellen, daß der Ausgangspegel bei Wiedergabe 0±1dB beträgt.

■ EINSTELLUNG DER BANGESCHWINDIGKEIT

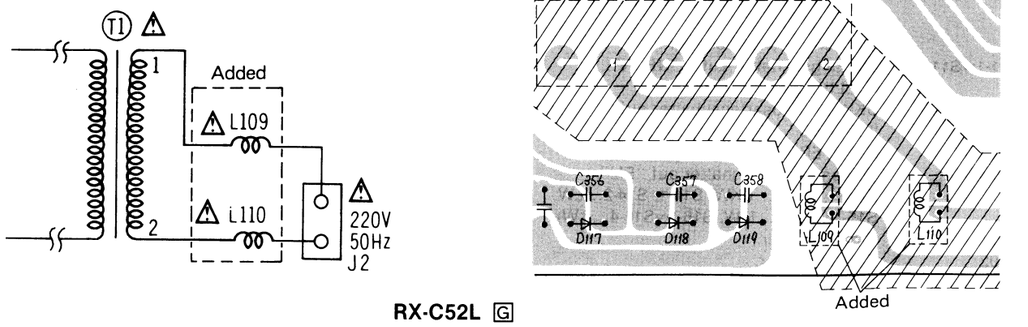
ZÄHLER	EINSTELLUNG
LINE OUT order SP.	1. Testband abspielen (QZZCWAT, 3kHz). 2. VR so einstellen, daß auf dem Zähler 3000Hz±90Hz abgelesen wird.

SCHEMATIC DIAGRAM AND CIRCUIT BOARD DIAGRAM FOR MODEL RX-C52L

■ AUDIO SECTION



RX-C52L Z (ORIGINAL)



RX-C52L G

GAD G A.M Printed in Japan

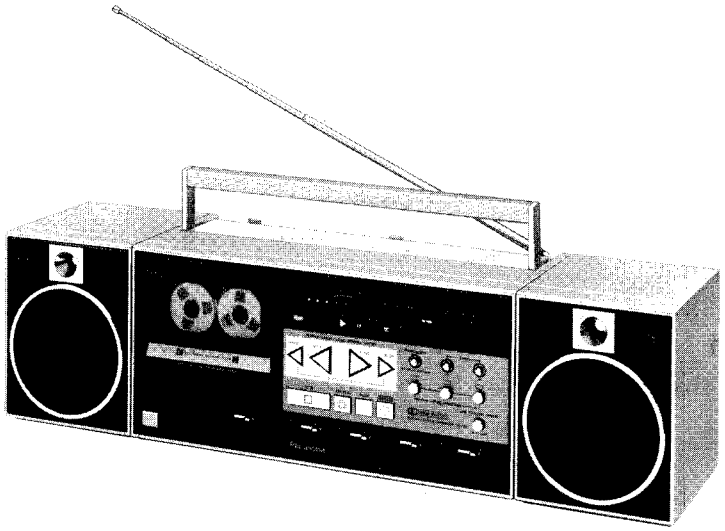
ORDER NO. GAD84075441C2

Service Manual

Portable Stereo Component System

RX-C52L

(Silver)



This is the Service Manual for the following areas.

Z ...For all European areas except United Kingdom & Germany.

E ...For United Kingdom.

■ SPECIFICATIONS

General:

Power Requirement:	AC; 220V 50Hz Battery; 12V (Eight "D" Size Flashlight Batteries) (Panasonic UM-1 or equivalent) Car battery; with optional car adaptor RP-952
Power Consumption:	27W (AC only)
Power Output:	15W (7.5W×2)...(max.)
Speaker:	Woofer; 10cm (4") PM Dynamic Speaker (3Ω) Tweeter; 3cm ($1^{1}/_{4}$") Ceramic Speaker (400Ω)
Input:	MIC; sensitivity 0.25mV/applicable microphone impedance 200~600Ω PHONO; sensitivity 5mV/47kΩ over LINE IN; sensitivity 200mV/47kΩ over DC IN; 13.2V
Output:	LINE OUT; sensitivity 360mV/4.7kΩ under EXT SP; 3~8Ω HEADPHONES; 32Ω
Dimensions:	549mm(W)×153mm(H)×152mm(D) ($21^{5}/_{8}$×6×6)" Main Unit 321mm(W)×153mm(H)×152mm(D) ($12^{5}/_{6}$×6×6)" Speaker Box 120mm(W)×153mm(H)×134mm(D) ($4^{3}/_{4}$×6×$5^{5}/_{16}$)"
Weight:	5.2kg (11 lb. 7.4 oz.) without batteries

Radio Section:

Radio Frequency Range:	FM; 87.5~108MHz LW; 150~285kHz (2000~1053m) MW; 520~1610kHz (577~186m) SW; 5.9~18MHz (50.8~16.7m)
Intermediate Frequency:	FM; 10.7MHz AM; 455kHz (470kHz [E])
Sensitivity:	FM; 2.6μV (−3dB Limit sens) LW; 74μV/m/50mW output MW; 40μV/m/50mW output SW; 2.7μV/50mW output

Tape Deck Section:

Frequency Response:	40~12,000Hz (with normal tape) 40~16,000Hz (with Metal tape)
Recording System:	AC bias, AC erase
Tape Speed:	4.8cm/s, ($1^{7}/_{8}$ ips)
Program Timer:	1 hour with C-60 cassette tape
Track System:	4-track 2 channel stereo recording and playback

Specifications are subject to change without notice.

Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

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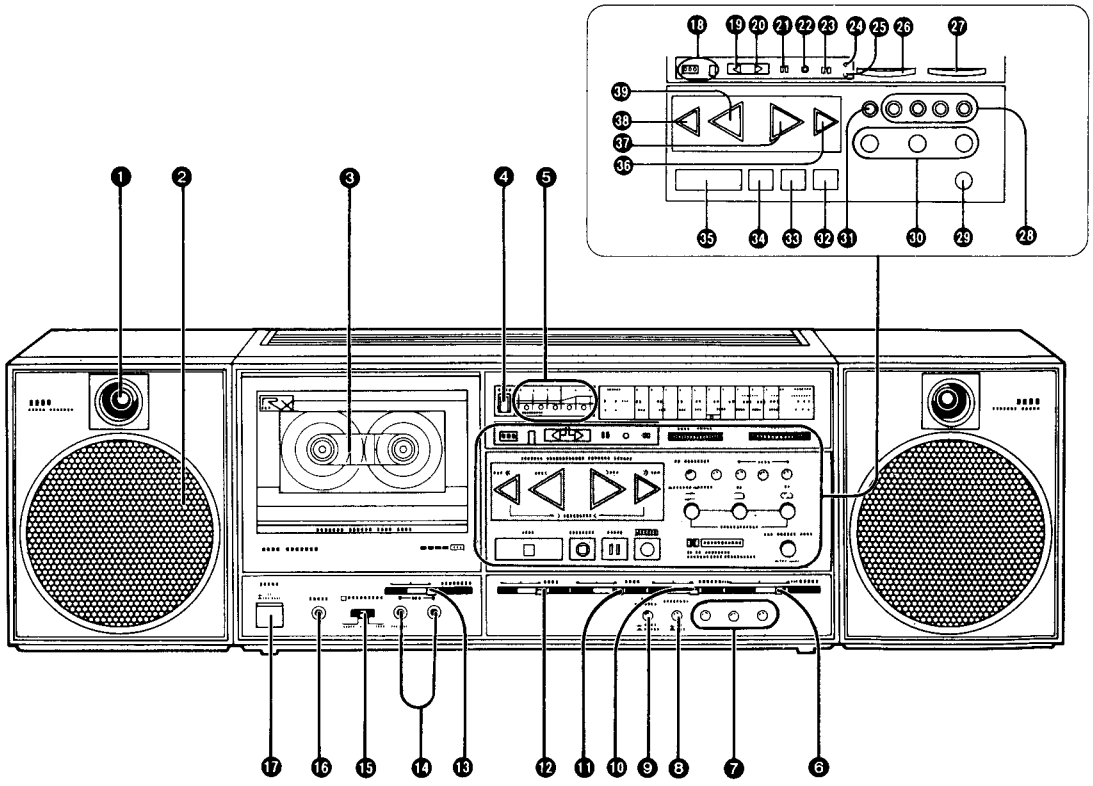
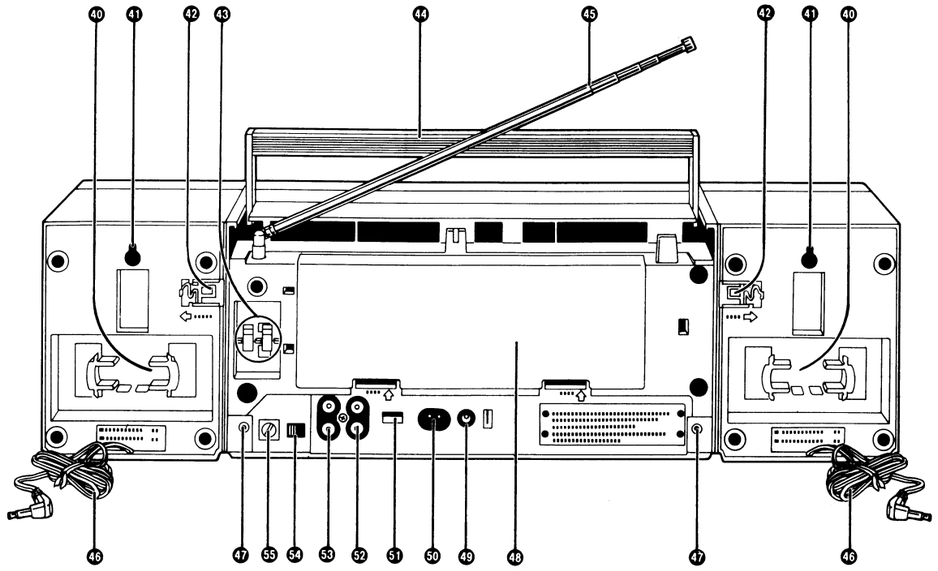
LOCATION OF CONTROLS AND COMPONENTS





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Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.

❶ **Speakers (Tweeter)**
❷ **Speakers (Woofer)**
❸ **Cassette Compartment**
❹ **Eject Button (▲ EJECT)**
❺ **Level Meter (LEVEL METER)**
The Level Meter lights to indicate the source level in each mode: radio, tape playback and recording, and even when using the unit as an amplifier with external sound sources.
❻ **Volume Control (VOLUME)**
❼ **Function Selector (FUNCITON)**
❽ ***Dolby Noise Reduction Switch (DOLBY NR)**
❾ **Tape Selector (TAPE SELECTOR)**
❿ **Balance Control (BALANCE)**
⓫ **Treble Control (TREBLE)**
⓬ **Bass Control (BASS)**
⓭ **Mixing Level Control (MIXING LEVEL)**
⓮ **Microphone Jacks (MIC)**
(Connect the Mixing Microphone to the left channel.)
⓯ **Timer Standby Selector (TIMER STANDBY)**
⓰ **Headphone Jack (PHONES)**

When using the headphones, avoid listening to sound for a long period of time at excessive volume levels, which may injure your ears.

⓱ **Operation Switch (OPERATION)**
⓲ **Tape Counter and Reset Button (TAPE COUNTER)**
The digits return to "000" when the Reset Button is pressed. The digits advance with the tape to provide a reference to quickly find a desired portion of the tape.
⓳ **Reverse Indicator (REVERSE)**
⓴ **Forward Indicator (FORWARD)**
㉑ **Pause Indicator (PAUSE)**
㉒ **Recording Indicator (RECORD)**
㉓ **Dolby Noise Reduction Indicator (DOLBY NR)**
㉔ **FM Stereo Indicator (FM ST)**
㉕ **Operation/Battery Check Indicator (OPR/BATT)**
㉖ **Fine Tuning Control (FINE TUNING)**
㉗ **Tuning Control (TUNING)**
㉘ **Band Selector (BAND)**
㉙ **One Program Repeat Button (ONE PROGRAM REPEAT)**
㉚ **Reverse Mode Selector (REVERSE MODE)**
㉛ **FM Mode Selector (FM MODE)**
㉜ **Record Button (RECORD)**
㉝ **Pause Button (PAUSE)**
㉞ **Record Muting Button (REC MUTE)**
㉟ **Stop Button (STOP)**
㊱ **Fast Forward/TPS Button (» / TPS)**
㊲ **Forward Button (› FWD)**
㊳ **TPS/Rewind Button (TPS / «)**
㊴ **Reverse Button (REV ‹)**
㊵ **Speaker Cable Compartments**
㊶ **Speaker Wall Mounts**
㊷ **Speaker Release Levers (RELEASE)**
㊸ **External Antenna Terminals (SW ANT/FM ANT)**
㊹ **Handle**
㊺ **Telescopic Antenna**
㊻ **Speaker Cables**
㊼ **Speaker Jacks (IMP 3–8Ω SPEAKER)**
㊽ **Battery Compartment**
㊾ **DC Input Jack (DC IN 13.2 V⊖⊖⊕)**
㊿ **AC Socket (AC IN ~)**
(51) **Beat Proof Switch (BEAT PROOF)**
(52) **Line Output Jacks (LINE OUT)**
(53) **Phono/Line Input Jacks (PHONO/LINE IN)**
(54) **Input Selector (PHONO • LINE IN)**
(55) **Phono Earth Terminal (⏚)**

The Name Plate of this set is located on the bottom of this center unit.

DISASSEMBLY INSTRUCTIONS

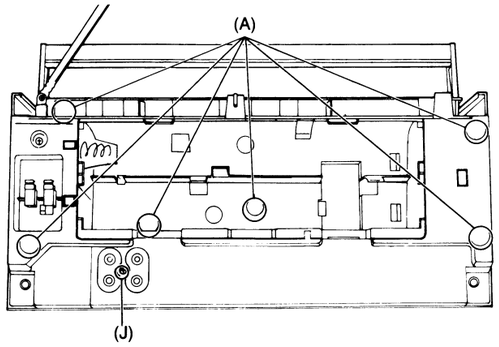

Fig. 1

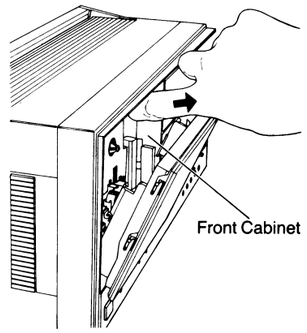

Fig. 2

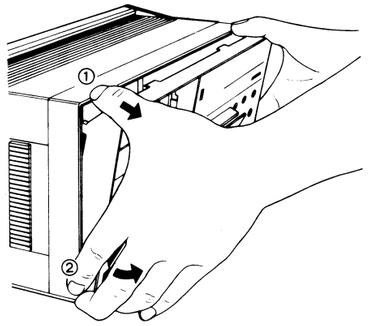

Fig. 3

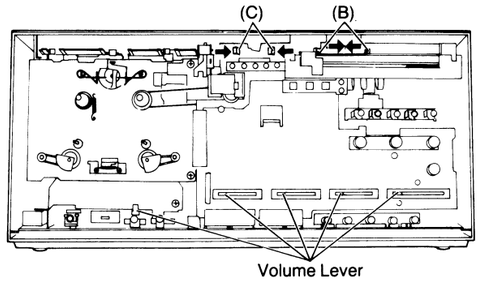

Fig. 4

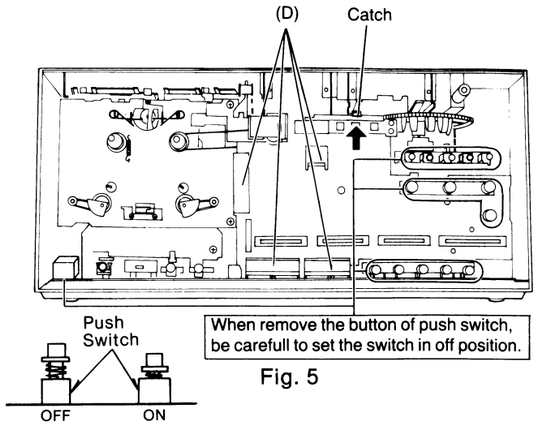

Fig. 5

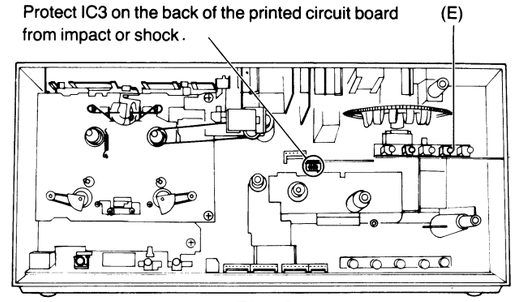

Fig. 6

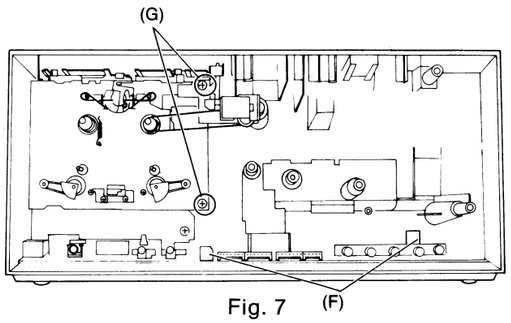

Fig. 7

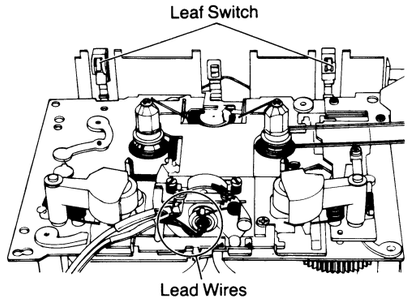

Fig. 8

Ref No.
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1. When asse
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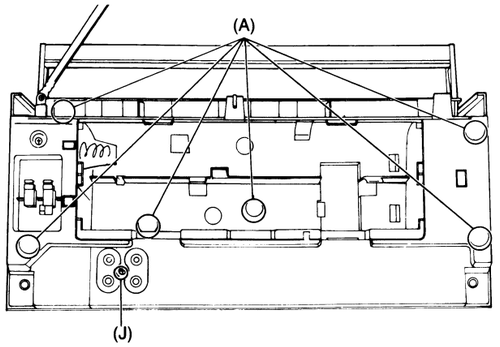
DISASSEMBLY INSTRUCTIONS



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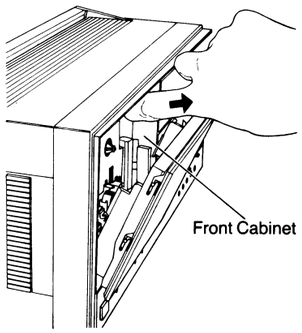


Fig. 2

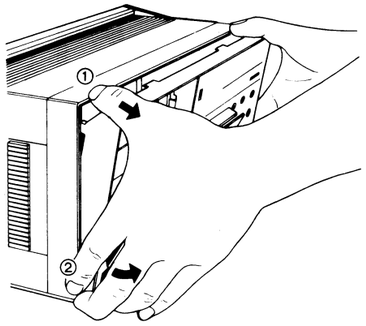


Fig. 3

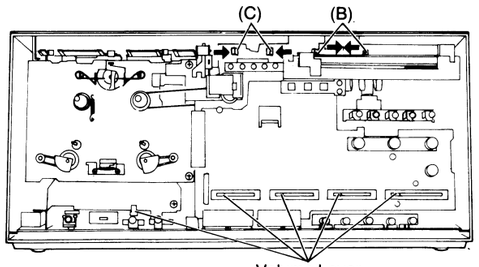
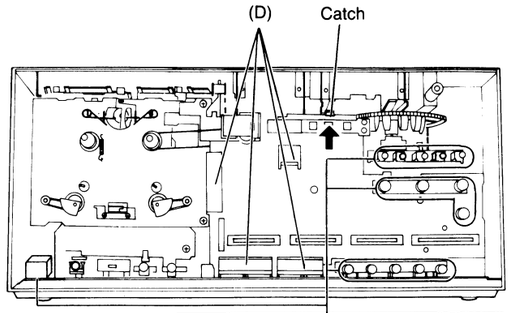


Fig. 4



When remove the button of push switch, be carefull to set the switch in off position.

Fig. 5

Protect IC3 on the back of the printed circuit board from impact or shock.

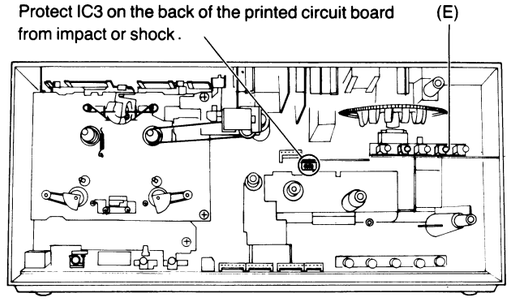


Fig. 6

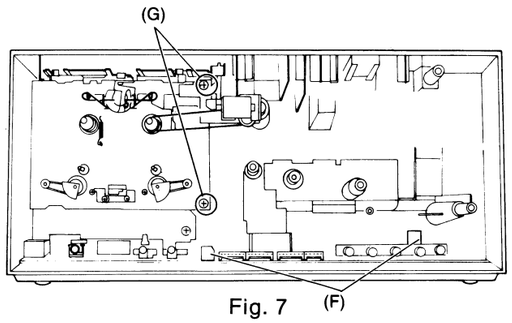


Fig. 7

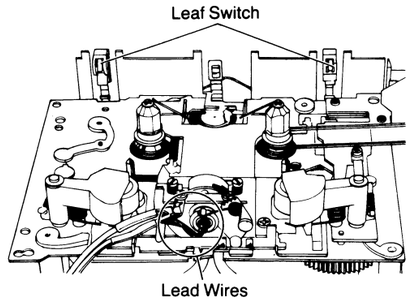


Fig. 8

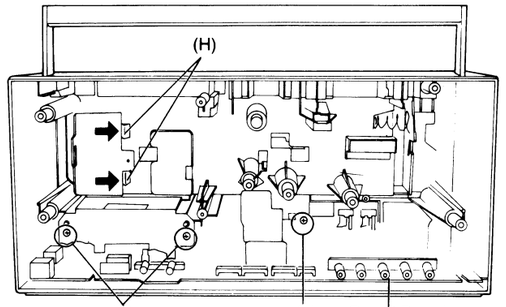


Fig. 9

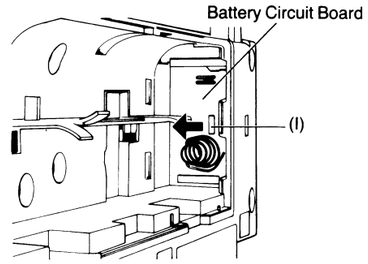


Fig. 10

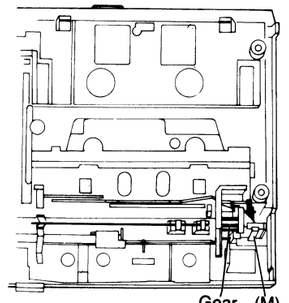


Fig. 11

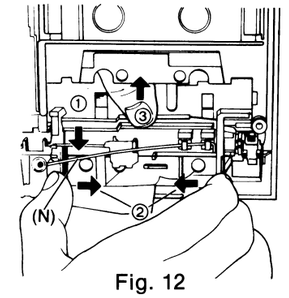


Fig. 12

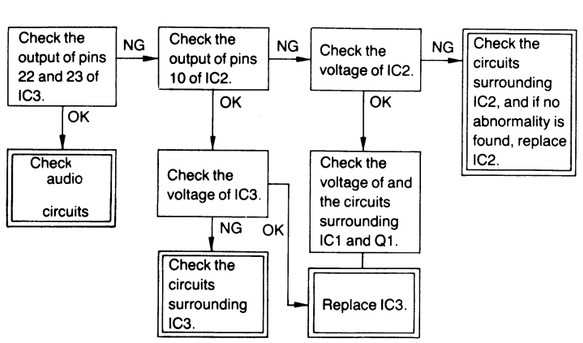
Ref No.	Procedure	Shown in Fig.—.	To remove—.	Remove—.
1	1~4	——	Front cabinet ※1	Battery compartment cover.
2		1		Screw (3×40) ..... (A)×6
3		2		Pull the front cabinet in the direction of arrow.
4		3		Remove the front cabinet in the direction of arrow ① and ②.
5	1~5	4	Dial chassis ※2	Push the catch in the direction of arrow. ..... (B)×2
6	1~8	4	Logic Circuit Board	Push the catch in the direction of arrow and remove the LED circuit board. ..... (C)×2
7		5		Plug ..... (D)×4
8		5		Push the catch in the direction of arrow.
9	1~9	6	Tuner Circuit Board	Pull out the circuit board ..... (E)×1
10	1~12	7	Mechanism	Socket ..... (F)×2
11		7		Screw (3×25) ..... (G)×2
12		8		Be sure the wires in the leaf switch or the lead wires are not bent or broken.
13	1~18	9	Audio Circuit Board	Push the catch in the direction of arrow. ..... (H)×2
14		10		Push the catch in the direction of arrow and remove the battery circuit board. ..... (I)×1
15		1		Screw (3×16) ..... (J)×1
16		9		Screw (3×25) ..... (K)×2
17		9		Screw (3×12) ..... (L)×1
18		9		Pull out the circuit board.
19	1~4, 19~21	11	Cassette Compartment	Push the catch in the direciton of arrow and remove the gear. ..... (M)×1
20		12		Remove the spring in the direction of arrow ①. ..... (N)×1
21		12		Push the cassette compartment in the direction of arrow ② and remove it in the direction of arrow ③.

1. When assemble the front cabinet, set the volume levers and knob to left side, as shown in fig. 4.
2. When assemble the dial chassis, turn the dial drum to fully clockwise and the tuning knob to fully counter-clockwise.

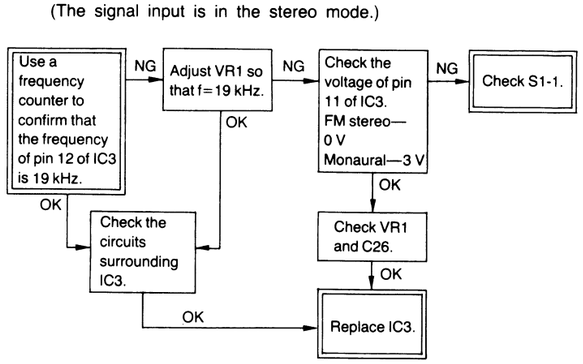
BEFORE REPLACING IC3

Check the IC3 according to the following procedure.

1. Radio does not opeate.
   *Set the unit in the FM mode, and apply a signal from the reference oscillator.


Check the output of pins 22 and 23 of IC3.
NG
Check the output of pins 10 of IC2.
NG
Check the voltage of IC2.
NG
Check the circuits surrounding IC2, and if no abnormality is found, replace IC2.
OK
Check audio circuits
Check the voltage of IC3.
NG
OK
Check the voltage of and the circuits surrounding IC1 and Q1.
Check the circuits surrounding IC3.
Replace IC3.

2. FM stereo is not received.
   *Set the unit in the FM stereo mode and apply a signal from the FM reference oscillator.
   (The signal input is in the stereo mode.)


Use a frequency counter to confirm that the frequency of pin 12 of IC3 is 19 kHz.
NG
Adjust VR1 so that f=19 kHz.
NG
Check the voltage of pin 11 of IC3.
FM stereo—0 V
Monaural—3 V
NG
Check S1-1.
OK
Check the circuits surrounding IC3.
Check VR1 and C26.
Replace IC3.

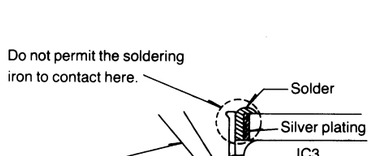
- Protect the RHC from impact or shock, as this may damage the inside of the laminated capacitor.
- Note the following items when exchanging the RHC.

•Removal

1. Use small nippers or a knife to cut the pins on the RHC. Be extremely careful not to cut the plating on the printed circuit board.
2. Removal is also possible by using a solder blotting wire.

•Attachment

1. Use a soldering iron rated below 40 W, and do not permit it to come in contact with any of the pins of the RHC for more than 3 seconds.
2. Do not allow the soldering iron to contact the soldered portion on the top of the RHC for more than 2 seconds. (When this solder melts, the silver plating on the laminated capacitor network melts with it, causing an open circuit condition.)



1. Main Function of the Mechnaism

1-1 Auto-Reverse
Either Side A or Side B can be played without turning over the cassette. Playback continues until the tape reaches the end.
One-Way Reverse
Playback in one direction reverses when the end of the tape is reached. Playback continues in the opposite direction until the tape reaches the end.
Continuous Reverse
Forward and reverse playback succeed each other automatically.

1-2 One Program Repeat
The tape rewinds automatically at the end of a song in order to play the song a second time.

1-3 One Music TPS
> During Forward Playback
>> Pressing this button fast forwards the tape in order to play the next song automatically.
<< Pressing this button rewinds the tape in order to automatically repeat play of the current song.
< During Reverse Playback
>> Pressing this button rewinds the tape in order to automatically repeat play of the current song.
<< Pressing this button fast forwards the tape in order to play the next song automatically.

1-4 Rewind Auto-Play
> During Forward Playback
< Simultaneously pressing the > and << buttons rewinds the tape. Playback starts from the beginning of the tape.
< During Reverse Playback
Simultaneously pressing the > and << buttons rewinds the tape, and playback starts from the beginning of the tape.

1-5 Auto Reverse
Stops forward or reverse recording at the end of the tape.
or The tape reverses automatically at the end of forward recording and records on the other side to the end of the tape.
Note: Auto reverse recording is only possible beginning in the forward mode.

1-6 Timer Standby and Recording
Forward playback in the PLAY position.
Forward recording in the REC position.
Note: The power switch must be turned on and the timer connected to power supply.

1-7 Sleep Operation
Continues playback or TPS operation even if the power switch is turned off.
Power turns off and operation stops automatically when the end of the tape is reached or when the STOP button is pressed.
Note: FF or REW operation always stops when the power switch is turned off.

1-8 Auto Record Muting
Pressing the muting button during Forward or Reverse recording creates a 4 second blank space on the tape, and the recording pause mode is activated.
To release:
1) Press the Forward or Reverse button...
   Forward or Reverse recording
2) Press the Pause button...Pause mode
3) Press the Stop button...Stops
*The muting continues as long as the button is depressed.

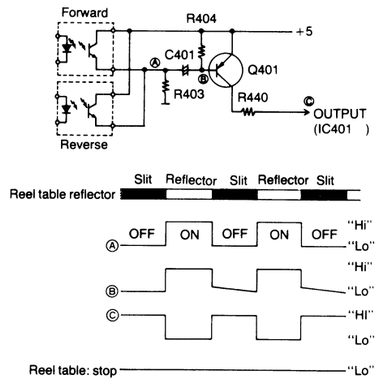
1-9 One-Touch Standby Recoding
To begin recording, simply press the Record button and either the Forward or Reverse button. Another way to begin recording is to first press the play button, then the Forward or Reverse button, then the Pause button, and finally the Record button.

1-10 Direct Eject
If the Eject button is pressed as the tape is moving, the unit stops and the cassette cover opens.

2. Mechanism Control Circuit

2-1 Tape End Detection
A rotation detector is located underneath the Forward and Reverse tape up reel tables. This detector consists of a photo diode, photo transistor and a reel table refelector.
The photo transistor turns ON and OFF according to the rotation of the reel table and causes the detector to emit pulse signals to IC401.

2-2 Assist Motor
The head is moved up and down or reversed by switching the polarity of the assist motor.
To switch the polarity of the assist motor, the polarity of its power source is switched by IC402 (assist motor drive) and the contorl signals of IC401 pins 20 and 21.

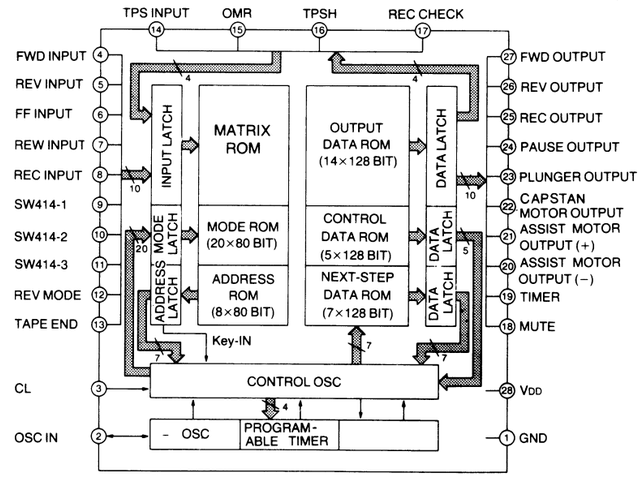


*Controlled by the input condition of IC401 pin 13.
Pulse input: Indicates that the reel table rotating.
No Pulse input: The end of the tape is detected and the next operation is performed.

IC401 and 402 Input/Output Relationship

IC401 output	IC4-2 output	Direction of motor revolution
Pin 20 "H" level Pin 21 "L" level	"H" "L"	FWD—STOP—REV (Reverse revolution)
Pin 20 "L" level Pin 21 "H" level	"L" "H"	FWD—STOP—REV (Forward revolution)

*Assist motor stop
The mechanism operation modes are activated by electrical signals from the rotary switches (S414-1 to -3) on the mechanism base plate.
For example, to switch the assist motor from the stop to the Forward mode, the Forward Code (3 bits) is output from the rotary switches (S414-1 to -3) to IC401 pins 9 to 11. The assist motor then stops.
(If an improper code is output due to a rotary switch malfunction, and the assist motor continues running for more than 2 seconds an error is detected and the assist motor automatically stops.)



Pin NO.	Pin name	Operation and function
1	GND	Ground connection pin.
2	OSC IN	External CR connection for internal oscillator circuit. 3.2 V 2.0 V (R409, C403 f=12.8 kHz)
3	CL	———
4~8	FWD INPUT REV INPUT FF INPUT REW INPUT REC INPUT	Input pins for signals from the operation buttons and timer switch. "L" level while each button is depressed.

Input pin ⑧ ⑦ ⑥ ⑤ ④	Mode	Input pin ⑧ ⑦ ⑥ ⑤ ④	Mode
1 1 1 1 0	FWD/TIMER•PLAY	1 0 0 1 1	PAUSE
1 1 1 0 1	REV	0 1 1 1 1	REC
1 1 1 0 0	STOP/EJECT	0 1 1 1 0	FWD•REC/TIMER•REC
1 1 0 1 1	FF, TPS	0 1 1 0 1	REV•REC
1 0 1 1 1	REW, TPS	0 0 1 1 1	REC•MUTE

"0"—ON (0 V), "1"—OFF (4.8 V)

Pin NO.	
9~11	SW41 SW41 SW41
12	REV
13	TAPE
14	TPS
15	OMR
16	TPS
17	REC
18	MUTE
19	TIME
20	ASSI OUTP
21	ASSI OUTP
22	CAPS OUTP
23	PLUN OUTP
24~27	PAUS REC REV FWD
28	VDD

■ ALIGNMENT

1. Set volume
2. Set timer s
3. Set balanc
4. Set Operat
5. Set band s

1-9 One-Touch Standby Recoding

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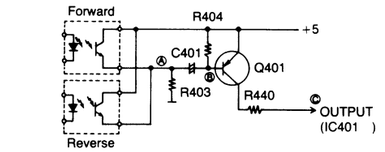

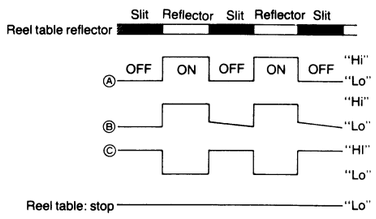

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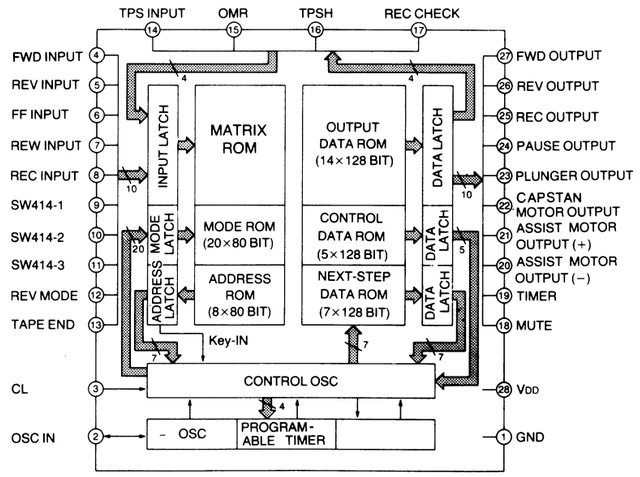
Pin 20 "L" level Pin 21 "H" level	"L" "H"	FWD—STOP—REV (Forward revolution)

*Assist motor stop

The mechanism operation modes are activated by electrical signals from the rotary switches (S414-1 to -3) on the mechanism base plate.

For example, to switch the assist motor from the stop to the Forward mode, the Forward Code (3 bits) is output from the rotary switches (S414-1 to -3) to IC401 pins 9 to 11. The assist motor then stops.

(If an improper code is output due to a rotary switch malfunction, and the assist motor continues running for more than 2 seconds an error is detected and the assist motor automatically stops.)



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4~8	FWD INPUT REV INPUT FF INPUT REW INPUT REC INPUT	Input pins for signals from the operation buttons and timer switch. "L" level while each button is depressed.

Input pin ⑧ ⑦ ⑥ ⑤ ④	Mode	Input pin ⑧ ⑦ ⑥ ⑤ ④	Mode
1 1 1 1 0	FWD/TIMER•PLAY	1 0 0 1 1	PAUSE
1 1 1 0 1	REV	0 1 1 1 1	REC
1 1 1 0 0	STOP/EJECT	0 1 1 1 0	FWD•REC/TIMER•REC
1 1 0 1 1	FF, TPS	0 1 1 0 1	REV•REC
1 0 1 1 1	REW, TPS	0 0 1 1 1	REC•MUTE

"0"—ON (0 V), "1"—OFF (4.8 V)

Pin NO.	Pin name	Operation and function
9~11	SW414-1 SW414-2 SW414-3	The rotary switch (S141-1 to -3) which comprises 3 switches transmits the mechanical condition of the mechanism to the microcomputer and stops the assist motor or checks other operations.

Input ⑨ ⑩ ⑪	Mode
1 0 0	FWD•STOP/FWD•PAUSE
0 1 0	FWD/FWD•REC
1 0 1	REV/REV•REC
0 0 0	REV•STOP/REV•PAUSE
1 1 1	Others

"0"—Switch ON (0 V) "1"—Switch OFF (4.8 V)

Pin NO.	Pin name	Operation and function
12	REV MODE	Distinguished which of the 3 types of Reverse playback was selected.

Input pin ⑫	Mode
0 V ("L" level)	⇦
2.5 V (1/2 V_{DD})	⇨
4.8 V ("H" level)	⇄

Pin NO.	Pin name	Operation and function
13	TAPE END	Inputs pulses from the sensor located underneath the take up reel during tape travel. If no pulse is input in one of the reel rotation mode, FF, REW, FWD and REV, it is judged as the tape end, and rotation is stopped automatically.
14	TPS INPUT	When a blank space between tunes is detected in FF, TPS or REW TPS, a "H" signal is input from IC103 for approximately 150 msec, and the player goes to the playback mode.
15	OMR	When the One Program Repeat switch is ON, a "L" signal is input, and playback of that one selection is repeated.
16	TPS H	When the FF.TPS or REW.TPS switch is pressed during playback, a "H" signal is applied to Q128, Q129 and Q136, turning each one of them ON.
17	REC CHECK	Checks whether the record prevention tab on the cassette tape has been removed or not. When not removed, the "H" signal for illumination of the FWD and REV LED is input to this pin through S415 or S416.
18	MUTE	A "H" signal is output when switching modes, when stopping, during FF/FF.TPS and during REW/REW.TPS, and when the REC.MUTE switch is pressed during recording, a "H" signal is output for about 4 sec, thus turning ON Q120 and Q121.
19	TIMER	When the power switch is turned ON, this pin immediately becomes "L" for approx. 0.8 sec, after which an "H" signal is normally output to SW7 and sets the timer mode.
20	ASSIST MOTOR OUTPUT (−)	A "H" signal is output for approx. 850 msec when the rotating head switches from the FWD condition to the REV condition.
21	ASSIST MOTOR OUTPUT (+)	A "H" signal is output for approx. 850 msec when the rotation head switches from the REV condition to the FWD condition.
22	CAPSTAN MOTOR OUTPUT	A "H" signal is output while the capstan motor is rotating (when not stopped) and switches Q402 ON.
23	PLUNGER OUTPUT	A "H" signal is output for approx. 150 msec at the beginning of FF and for approx. 200 msec when stopping, and a "H" signal is output for approx. 400 msec at the beginning of REW and for approx. 200 msec when stopping, thus turning ON Q403 and activating the solenoid.
24~27	PAUSE OUTPUT REC OUTPUT REV OUTPUT FWD OUTPUT	A "H" signal that illuminates each of the LEDs for FWD, REV, REC and PAUSE is output during each of the respective modes.
28	V_{DD}	+5 V input terminal.

MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

1. Set volume control to maximum.
2. Set timer stand by switch to off.
3. Set balance, bass and treble control to center.
4. Set Operation switch to on.
5. Set band switch to MW, LW, SW or FM.
6. Set function selector to radio.
7. Set power source voltage to 12V DC.
8. Output of signal generator should be no higher than necessary to obtain an output reading.

■ MW, LW and SW ALIGNMENT

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR CONNECTIONS	SIGNAL GENERATOR or SWEEP GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
			AM-IF ALIGNMENT				
(1)	MW	Fashion loop of several turns of wire and radiate signal into loop of receiver.	(470kHz [E]) 455kHz 30% Mod. at 400Hz	Point of non-interference. (on/ about 600kHz)	Output meter across voice coil.	T2 (AM IFT)	Adjust for maximum output.
			LW-RF ALIGNMENT				
(2)	LW	〃	136kHz	Tuning capacitor fully closed.	〃	L8 (LW OSC Coil)	〃
(3)	LW	〃	297kHz	Tuning capacitor fully open.	〃	CT7 (LW OSC Trimmer)	〃
(4)	LW	〃	145kHz	Tune to signal.	〃	(*1) L5 (LW ANT Coil)	Adjust for maximum output. Adjust L5 by moving coil bobbin along ferrite core.
(5)	LW	〃	285kHz	〃	〃	CT5 (LW ANT Trimmer)	Adjust for maximum output. Repeat steps (2)~(5).
	(*1) Cement antenna bobbin with wax after completing alignment.						
			MW-RF ALIGNMENT				
(6)	MW	〃	511kHz	Tuning capacitor fully closed.	〃	L7 (MW OSC Coil)	Adjust for maximum output.
(7)	MW	〃	1,650kHz	Tuning capacitor fully open.	〃	CT4 (MW OSC Trimmer)	〃
(8)	MW	〃	550kHz	Tune to signal.	〃	(*2) L4 (MW ANT Coil)	Adjust for maximum output. Adjust L4 by moving coil bobbin along ferrite core.
(9)	MW	〃	1,500kHz	〃	〃	CT3 (MW ANT Trimmer)	Adjust for maximum output. Repeat steps (6)~(9).
	(*1) Cement antenna bobbin with wax after completing alignment.						
			SW-RF ALIGNMENT				
(10)	SW	Connect to test point ▼5 through ceramic capacitor (10pF). Negative side to earth.	5.75MHz	Tuning capacitor fully closed.	〃	L6 (SW OSC Coil)	Adjust for maximum output.
(11)	SW		18.8MHz	Tuning capacitor fully open.	〃	CT6 (SW OSC Trimmer)	〃
(12)	SW		5.9MHz	Tune to signal.	〃	L3 (SW ANT Coil)	Adjust for maximum output. Repeat steps (10)~(12).

■ FM ALIGNMENT

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR CONNECTIONS	SIGNAL GENERATOR or SWEEP GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
			FM-IF ALIGNMENT				
(1)	FM	High side thru. 0.001μF to test point ▼4, Negative side to earth.	10.7 MHz SWP.)	Point of non-interference. (on/ about 90 MHz)	Connect vert. amp. of scope to test point ▼2. Negative side to earth.	T1 (FM 1st IFT)	Adjust for maximum amplitude. (Refer to fig. 4).
(2)	FM	〃	〃	〃	〃	T3 (FM 2nd IFT)	Adjust for maximum amplitude. (Refer to fig. 5).
			FM-RF ALIGNMENT				
(3)	FM	Connect to test point ▼5 through FM dummy antenna. Negative side to earth.	87.5 MHz	Variable capacitor fully closed.	Output meter across voice coil.	L2 (FM OSC Coil)	(*2) Adjust for maximum output.
(4)	FM		108 MHz	Variable capacitor fully open.	〃	CT2 (FM OSC Trimmer)	〃
(5)	FM		90 MHz	Tune to signal.	〃	L1 (FM ANT Coil)	〃
(6)	FM		106 MHz	〃	〃	CT1 (FM ANT Trimmer)	(*2) Adjust for maximum output. Repeat steps (3)~(6).
	(*2) Three output responses will be present; proper tuning is the center frequency.						

■ SEPARATION ALIGNMENT

ITEM	FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
Adjustment of pilot signal.	98 MHz, 60 dB	▼3 . . . (+) Earth . . . (−)	VR1	19 kHz	Adjust VR1, for 19 kHz (±0.1 kHz) reading on electronics counter.

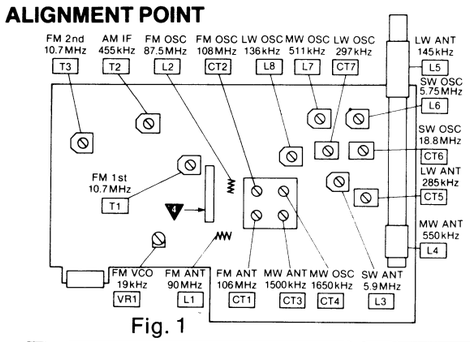
■ AUDIO ADJUSTMENT

ITEM	INPUT	MEASUREMENT POINT	SPECIFICATION	ADJUSTMENT POINT	REMARKS
Azimuth	QZZCFM (8 kHz, −20 dB)	LINE OUT or SP	Maximum output.	Azimuth screw	Playback mode
Playback level	QZZCFM (315 Hz, 0 dB)	▼103 . . . (Lch) ▼203 . . . (Rch) ▼104 . . . (−)	0.42±0.02 V	VR105 (Lch) VR205 (Rch)	Playback mode
Erase current	Use metal tape	▼105 . . . (+) ▼205 . . . (−)	155 $\pm^{10}_{5}$ mV	VR106	Record mode Tape selector→Metal
Bias current	Use metal tape	▼102 . . .(Lch) ▼101 . . . (−) ▼201 . . . (Rch) ▼202 . . . (−)	Metal 9±1.5 mV Normal 4.5±0.2 mV	VR101 (Lch) VR201 (Rch) Normal	Record mode
Overall gain	Line In f=1 kHz, −24 dB	▼103 . . .(Lch) ▼203 . . . (Rch) ▼104 . . . (−)	0±1 dB	VR107 (Lch) VR108 (Rch)	1. Record the prescribed input signal and read the output level. 2. Using the output level in (1) as the 0 dB level, adjust it so that the output during playback is 0±1 dB.

■ TAPE SPEED ADJUSTMENT

COUNTER	ADJUSTMENT
LINE OUT or SP	1. Play back test tape (QZZCWAT, 3 kHz). 2. Adjust VR until 3000 Hz ±90 Hz is read on the counter.

■ ALIGNMENT POINT


FM 2nd 10.7MHz T3
AM IF 455kHz T2
FM OSC 87.5MHz L2
FM OSC 108MHz CT2
LW OSC 136kHz L8
MW OSC 511kHz L7
LW OSC 297kHz CT7
LW ANT 145kHz L5
SW OSC 5.75MHz L6
SW OSC 18.8MHz CT6
LW ANT 285kHz CT5
MW ANT 550kHz L4
FM 1st 10.7MHz T1
FM VCO 19kHz VR1
FM ANT 90MHz L1
FM ANT 106MHz CT1
MW ANT 1500kHz CT3
MW OSC 1650kHz CT4
SW ANT 5.9MHz L3
Fig. 1

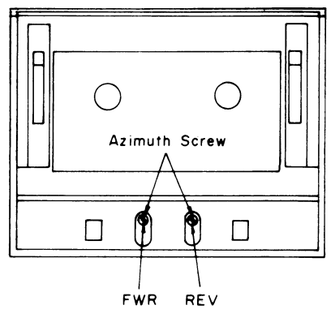


Fig. 2

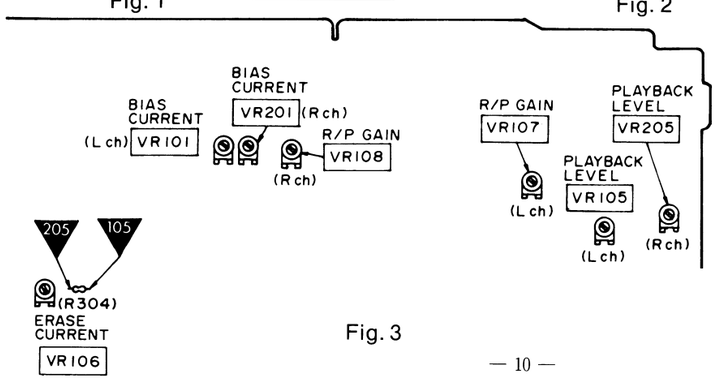


Fig. 3

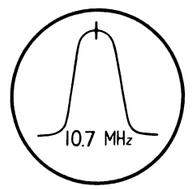


Fig. 4

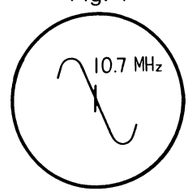


Fig. 5

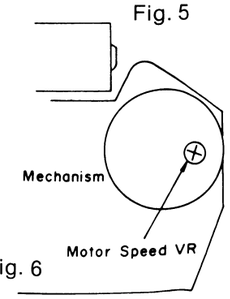
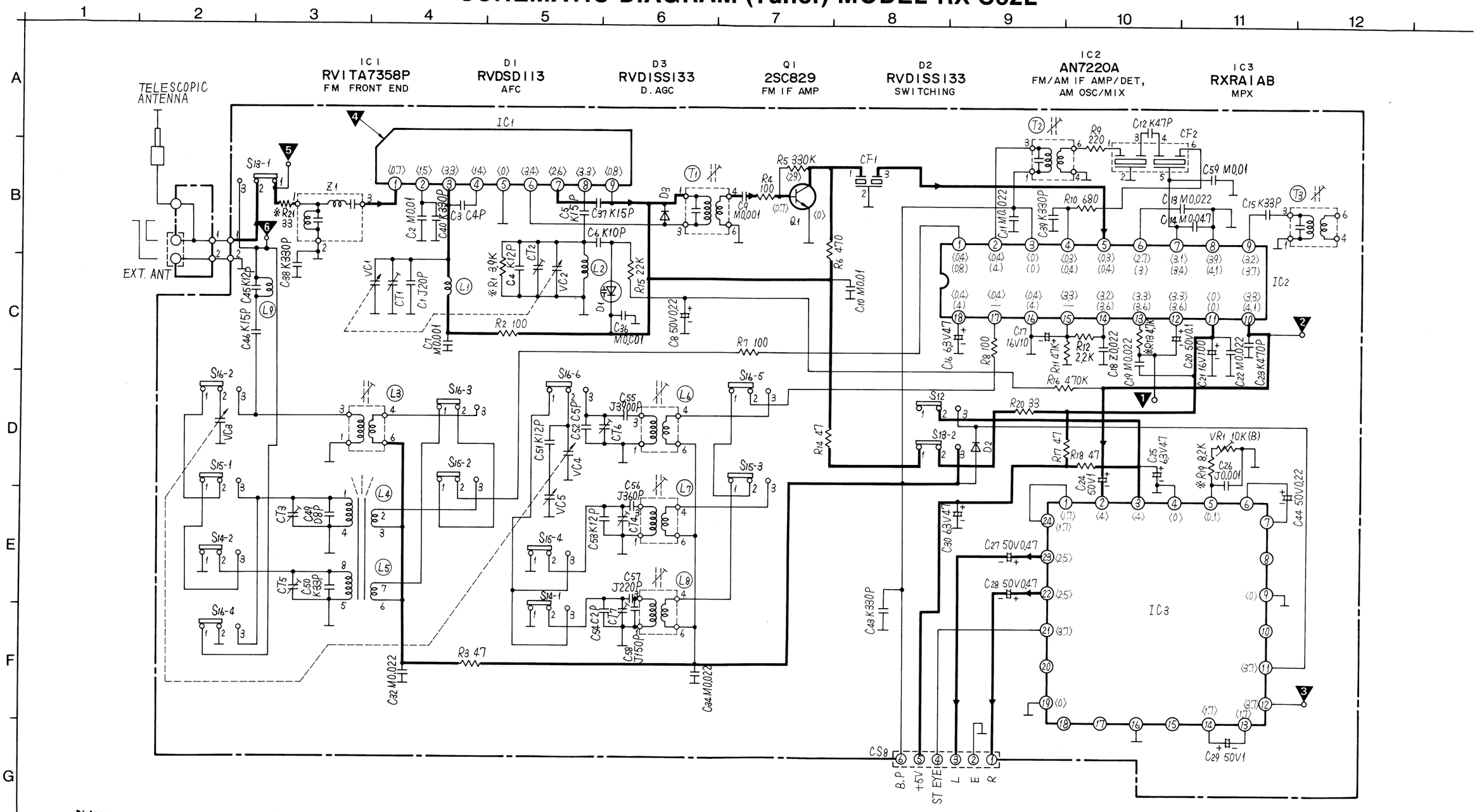


Fig. 6

SCHEMATIC DIAGRAM (Tuner) MODEL RX-C52L

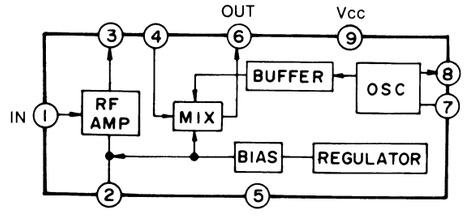


Notes:

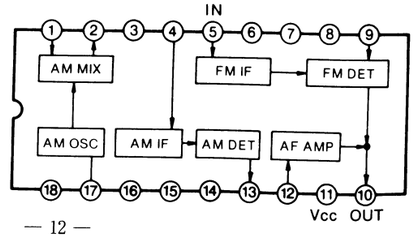
1. S12: FM mode switch in "STEREO" position. (1...STEREO, 3...MONO)
2. S13~S16: Band switch in "FM" position. (S13-1, S13-2...FM, S14-1, S14-2...LW, S15-1~S15-4...MW, S16-1~S16-4...SW)
3. VR1: VCO adjustment VR.
4. DC voltage measurement are taken with electronics voltmeter from negative terminal of battery.
   < >...FM, ( )...MW
5. For resistors, using printed types except those with * mark.

+ Ⓑ Voltage Line.
Radio (FM) Signal Line.

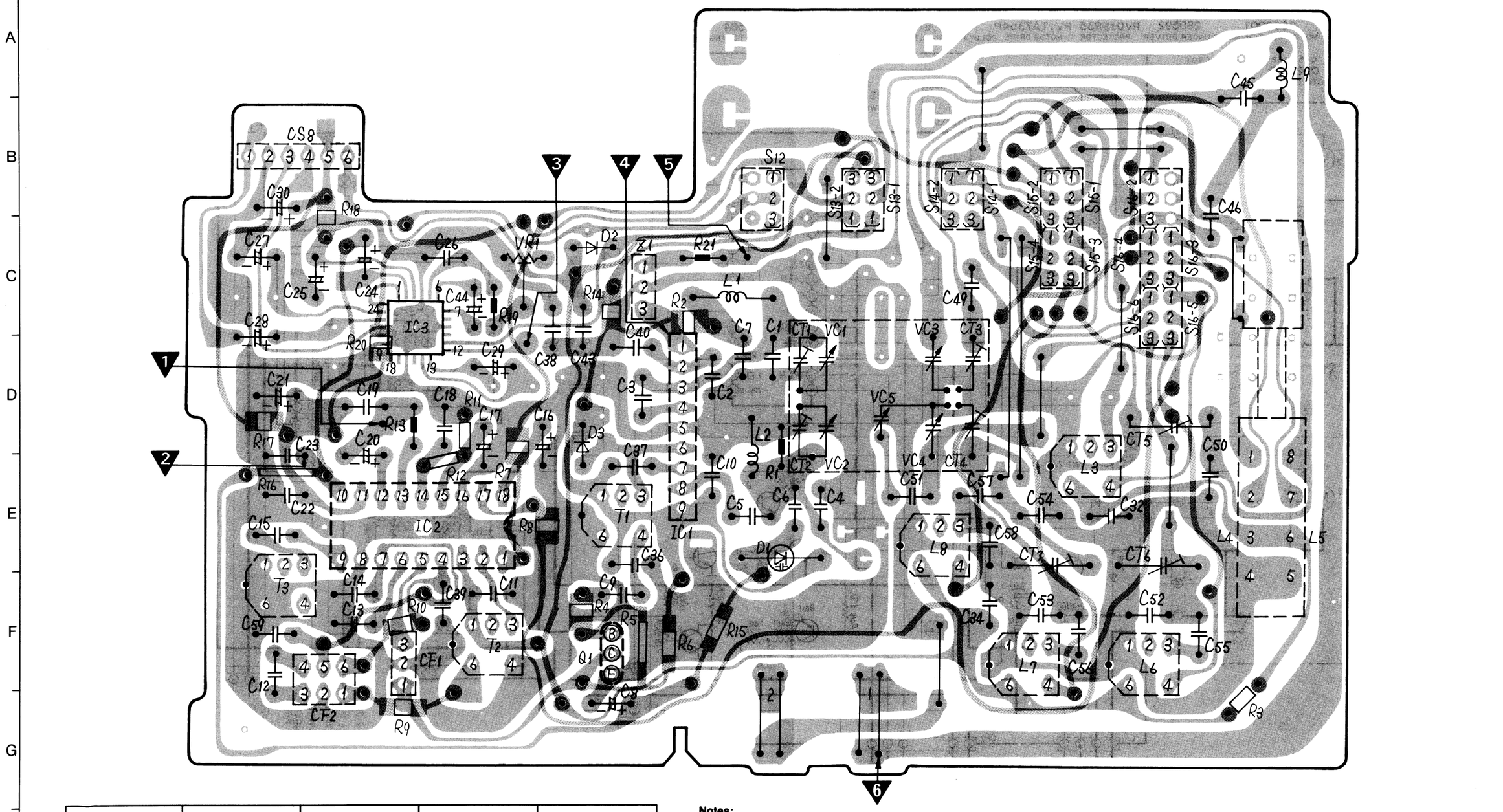
IC1 RVITA7358P

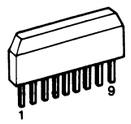
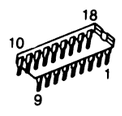
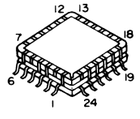
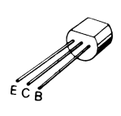
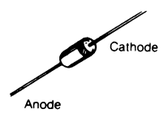


IC2 AN7220A



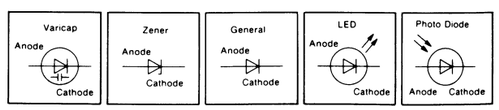
CIRCUIT BOARD (Tuner) MODEL RX-C52L



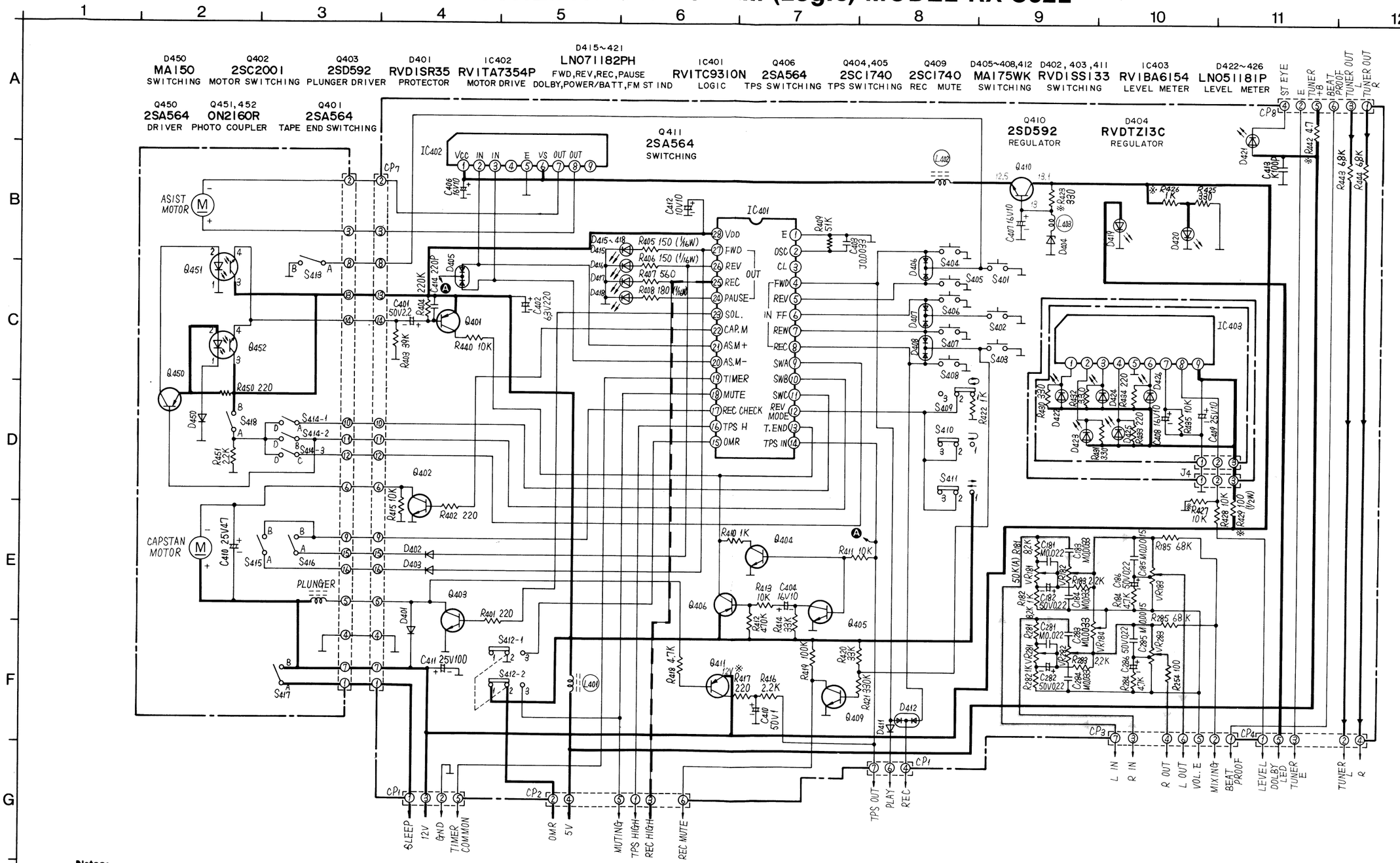
IC1	IC2	IC3	Q1	D1, 2, 3
				

Notes:

1. The symbols ( ) shown in the circuit board indicate printed resistor.
2. The circuit shown in ( ) on the conductor indicates printed circuit on the back side of the printed circuit board.
3. The circuit shown in ( ) on the conductor indicates printed circuit on the front side of the printed circuit board.
4. The symbols (●) shown in the circuit board indicate connection points between conductors on the front side and back side of the circuit board.



SCHEMATIC DIAGRAM (Logic) MODEL RX-C52L

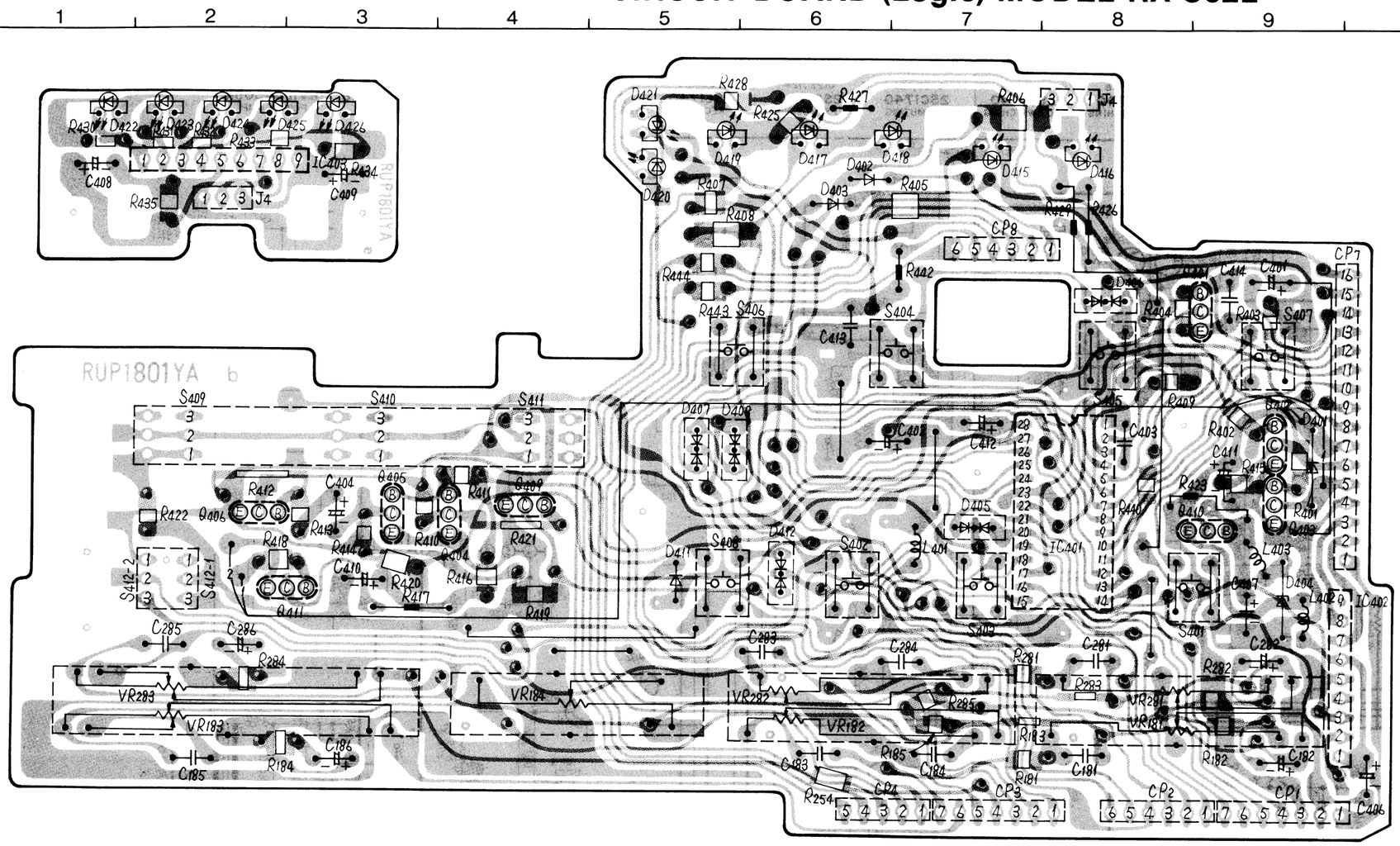


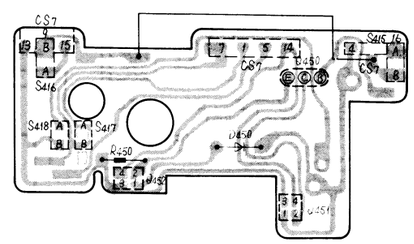
Notes:

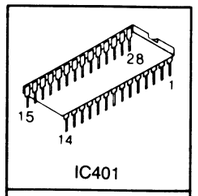
1. S401: Stop switch.
2. S402: Pause switch.
3. S403: Record Muting switch.
4. S404: Forward switch.
5. S405: Reverse switch.
6. S406: Fast Forward/TPS switch.
7. S407: TPS/Rewind switch.
8. S408: Record switch.
9. S409~S411: Tape direction switch.
   (S409...repeat two-side playback or two-side recording, S410...two-side playback or recording, S411...one-side playback or recording)
10. S412-1, S412-2: One program repeat switch in "OFF" position.
    (1...OFF, 3...ON)
11. S413: Eject switch.
12. S414-1~S414-3: Rotary switch.
13. S415, S416: Record Check switch.
14. S417: Sleep switch.
15. S418: Fast Forward/Rewind switch.
16. VR181, 281: Bass control VR.
    VR182, 282: Treble control VR.
    VR183, 283: Volume control VR.
    VR184: Balance control VR
17. DC voltage measurements are taken with electronics voltmeter from negative terminal of battery.
18. For resistors using printed types except those with ※ mark.

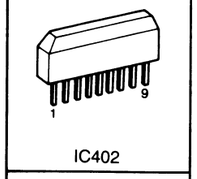
+ Ⓑ Voltage Line
Tape (PLAY BACK) Signal Line
Radio (FM) Signal Line
Recording control signal line

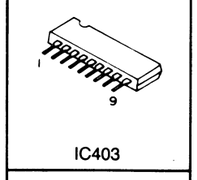
CIRCUIT BOARD (Logic) MODEL RX-C52L

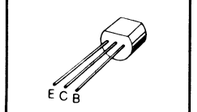




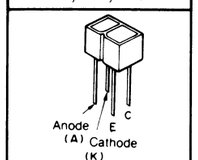




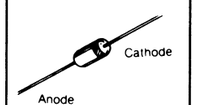




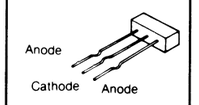
Q401~403, 406, 410, 411, 450



Q451, 452



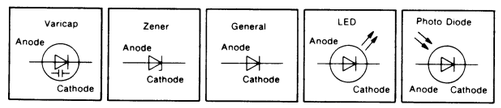
D401~403, 411, 450



D405~408, 412

Notes:

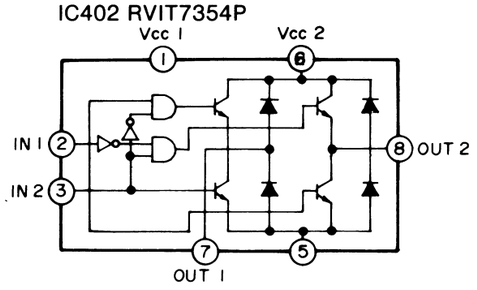
1. The symbols ( ) shown in the circuit board indicate printed resistor.
2. The circuit shown in ( ) on the conductor indicates printed circuit on the back side of the printed circuit board.
3. The circuit shown in ( ) on the conductor indicates printed circuit on the front side of the printed circuit board.
4. The symbols (●) shown in the circuit board indicate connection points between conductors on the front side and back side of the circuit board.



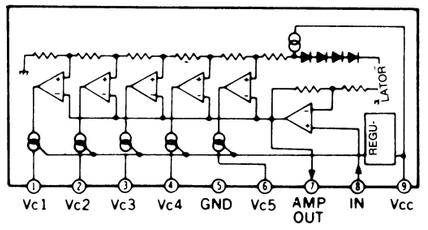
IC401 Voltage

Pin	1	2	3	4	5	6	7	8	9	10	11	12	13	14
STOP	0	2.6	4.7	4.7	4.7	4.7	4.7	4.7	4.7/1.2	0.9/1.2	0.9/1.2	4.8	0/0.1	0
FWD	〃	〃	〃	〃	〃	〃	〃	〃	0.9	4.7	〃	〃	⊓⊓	〃
REV	〃	〃	〃	〃	〃	〃	〃	〃	4.7	0.5	4.7	〃	〃	〃
REW	〃	〃	〃	〃	〃	〃	〃	〃	〃	—	〃	〃	〃	〃
F F	〃	〃	〃	〃	〃	〃	〃	〃	—	4.7	—	〃	〃	〃
FWD REC	〃	〃	〃	〃	〃	〃	〃	〃	0.9	〃	0.9	〃	〃	〃
REV REC	〃	〃	〃	〃	〃	〃	〃	〃	4.7	0.5	4.7	〃	〃	〃
Pin	15	16	17	18	19	20	21	22	23	24	25	26	27	28
STOP	4.7	0	0	4.1	4.4	0	0	0	0	0	0	0	0	4.8
FWD	〃	〃	3.6	0	〃	〃	〃	4.0	〃	〃	〃	〃	4.1	〃
REV	〃	〃	〃	〃	〃	〃	〃	〃	〃	〃	〃	4.1	0	〃
REW	〃	〃	0	〃	〃	〃	〃	〃	〃	〃	〃	0	〃	〃
F F	〃	〃	〃	4.1	〃	〃	〃	〃	〃	〃	〃	〃	〃	〃
FWD REC	〃	〃	3.6	0	〃	〃	〃	〃	〃	〃	4.1	〃	4.1	〃
REV REC	〃	〃	〃	〃	〃	〃	〃	〃	〃	〃	〃	4.1	0	〃
						FWD→REV ⊕	REV→FWD ⊕		FF/REW ⊖	PAUSE 4.1				

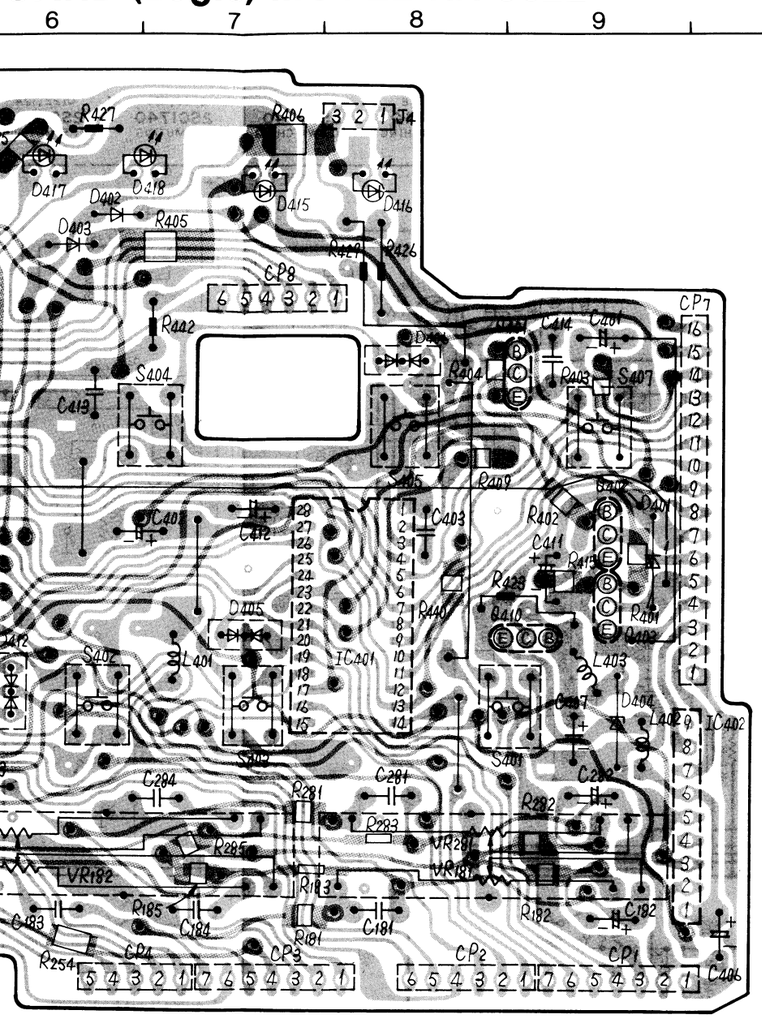
IC402 RVIT7354P

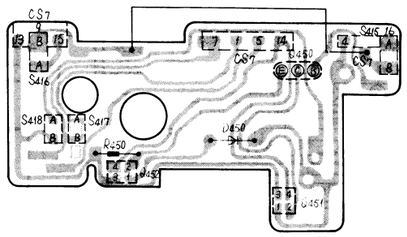


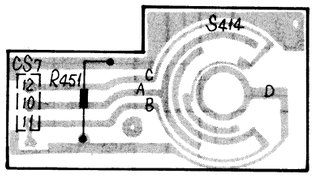
IC403 RVIBA6154

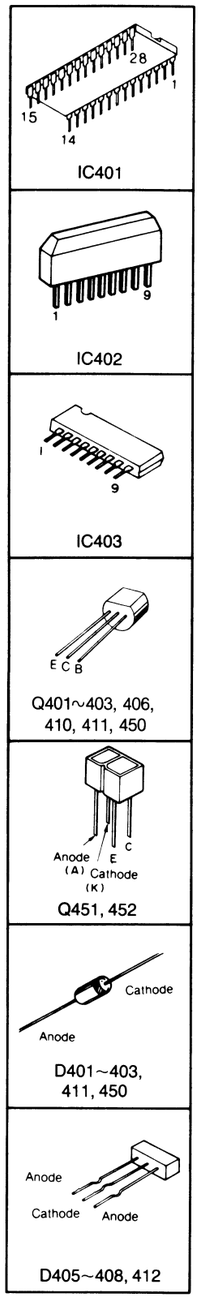


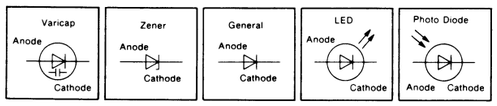
OARD (Logic) MODEL RX-C52L





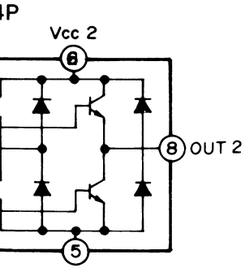




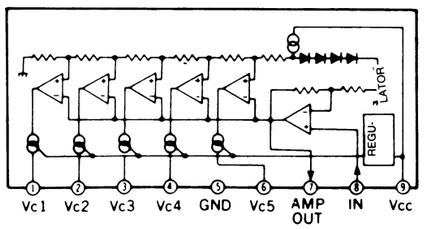


) shown in the circuit board indicate printed resistor.
( ) on the conductor indicates printed circuit
f the printed circuit board.
( ) on the conductor indicates printed circuit
the printed circuit board.
own in the circuit board indicate connection points
on the front side and back side of the circuit board.

4P

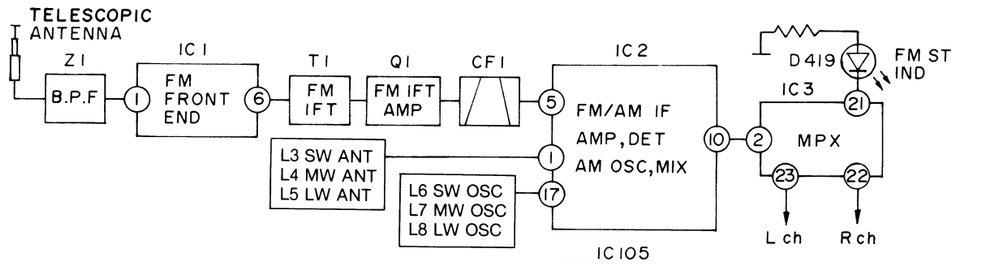


IC403 RVIBA6154

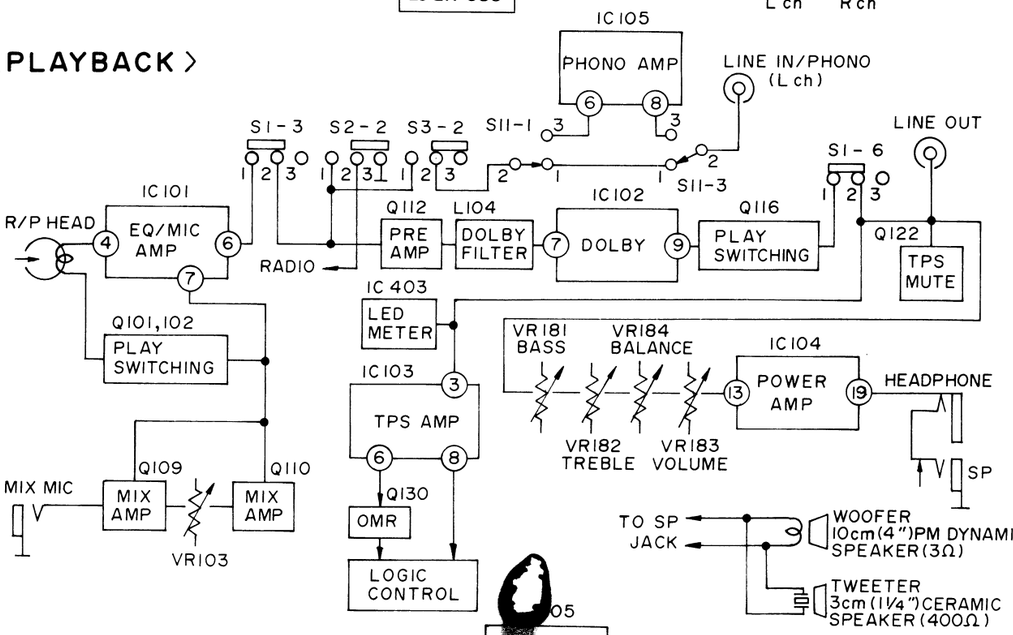


BLOCK DIAGRAM

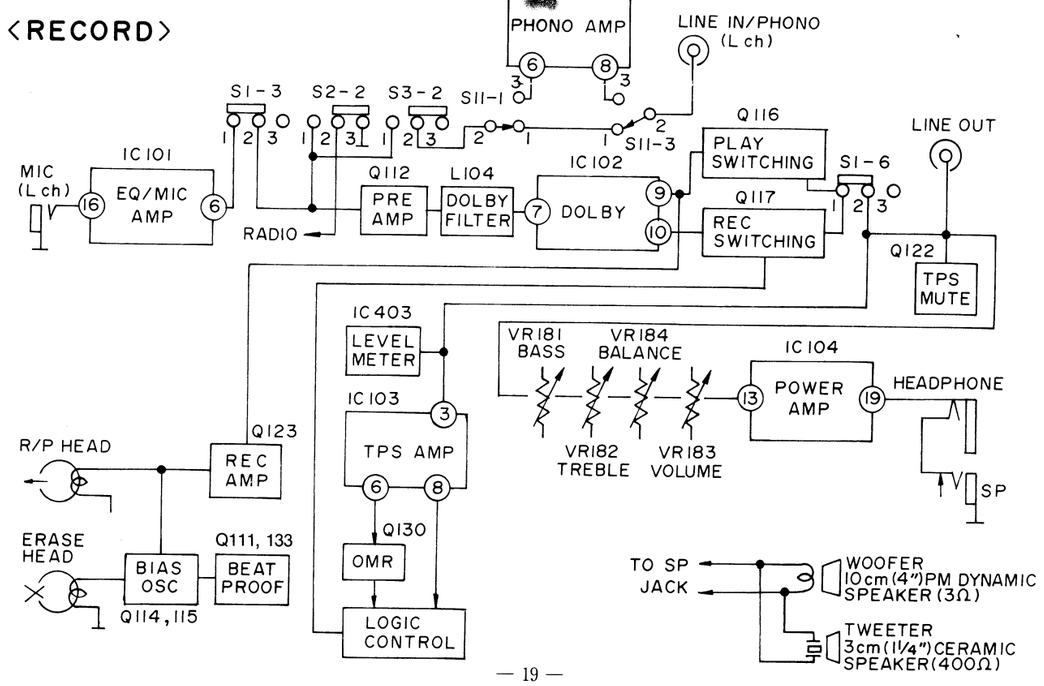
<RADIO>



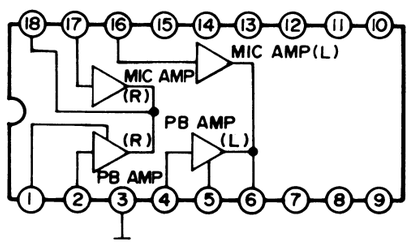
<PLAYBACK>



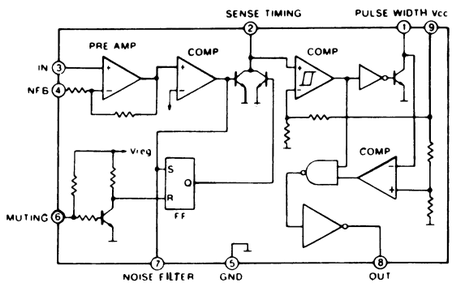
<RECORD>



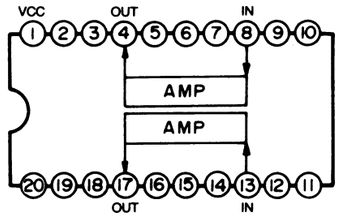
IC101 AN6205



IC103 RVIBA338

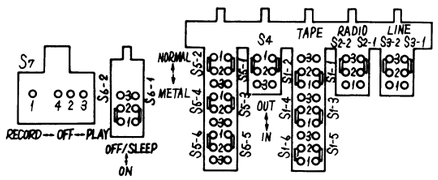


IC104 RVILA4505R

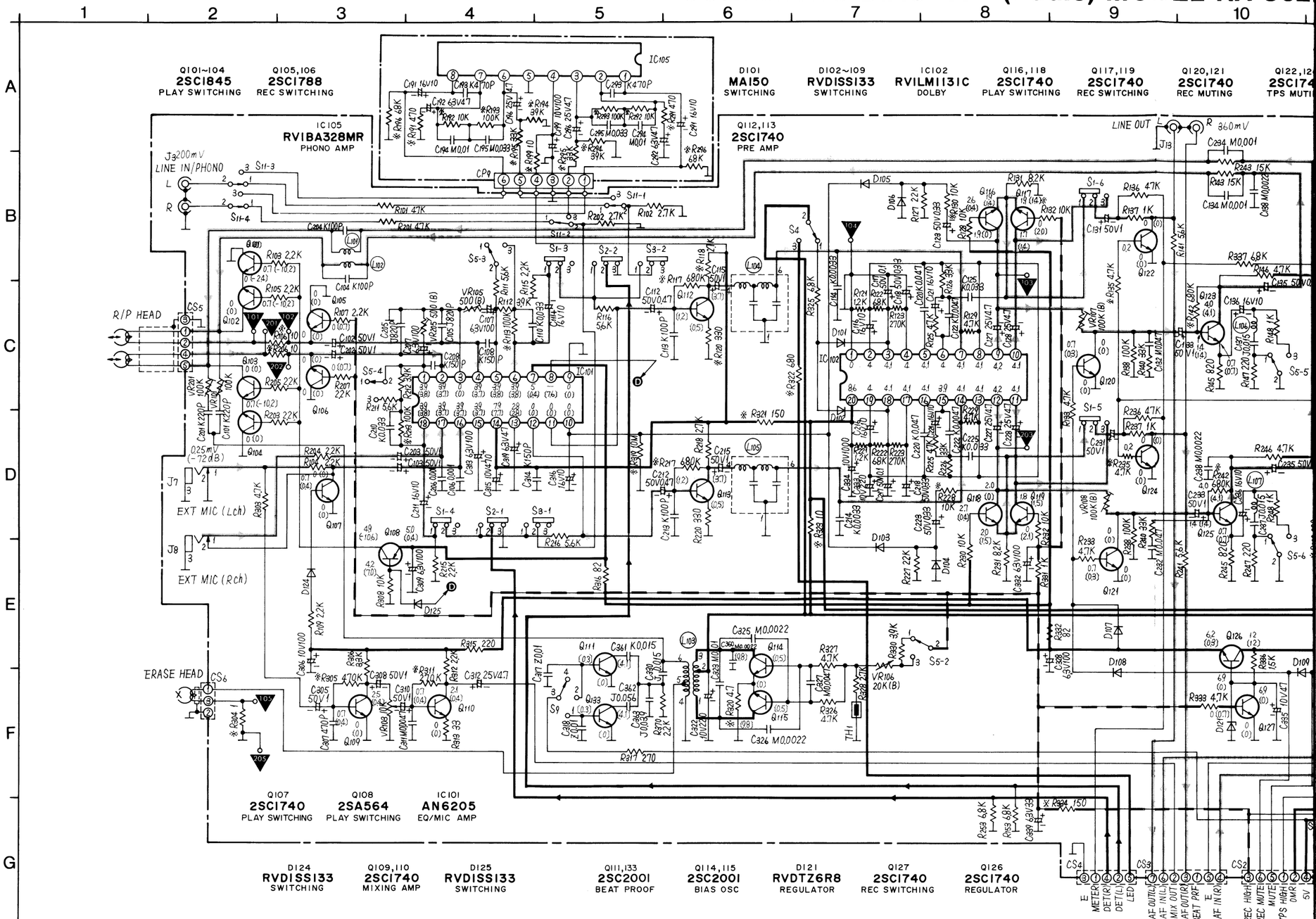


Notes:

1. S1~S3: Function switch in "TAPE" position. (S1-1~S1-6...TAPE, S2-1, S2-2...RADIO S3-1, S3-2...LINE/PHONO)
2. S4: Dolby noise reduction switch in "OUT" position. (1...OUT, 3...IN)
3. S5-1~S5-6: Tape switch in "NORMAL" position. (1...NORMAL, 3...METAL)
4. S6-1, S6-2: Operation switch in "ON" position. (1...ON, 3...OFF/SLEEP)
5. S7: Timer stand by switch in "RECORD" position. (1...RECORD, 2...OFF, 3...PLAY)
6. S8: AC/DC selector switch in "AC" position.
7. S9: Beat proof switch.
8. S11-1~S11-4: Input switch in "LINE IN" position. (1...LINE IN, 3...PHONO)
9. VR101, 201: Bias current adjustment VR.
   VR103: Mixing level control VR.
   VR105, 205: Playback level adjustment VR.
   VR106: Erase current adjustment VR.
   VR107, 108: Overall gain adjustment VR.
10. DC voltage measurements are taken with electronics voltmeter from negative terminal of battery. [ ]...Record
11. Battery current: No signal ..... 177 mA
    Maximum output (radio) 1.25A
    Maximum output (tape) 1.27A
12. For resistors, using printed types except those with ※ mark.



SCHEMATIC DIAGRAM (Audio) MODEL RX-C52



13. Important safety notice
    Components identified by ⚠ mark have special characteristics important for safety.
    When replacing any of these components, use only manufacturer's specified parts.

— + B Voltage Line
— Tape (PLAY BACK) Signal Line
→ Radio (FM) Signal Line
- - - Recording control signal line
Tape (RECORD) signal line

SCHEMATIC DIAGRAM (Audio) MODEL RX-C52L

3 4 5 6 7 8 9 10 11 12 13 14 15

Q105,106 2SCI788 REC SWITCHING
D101 MAI50 SWITCHING
D102~109 RVDISSI33 SWITCHING
IC102 RVILM1131C DOLBY
Q116,118 2SCI740 PLAY SWITCHING
Q117,119 2SCI740 REC SWITCHING
Q120,121 2SCI740 REC MUTING
Q122,124 2SCI740 TPS MUTING
Q123,125 2SCI740 REC AMP
Q128,129,136 2SCI740 TPS SWITCHING
Q130 2SCI740 OMR SWITCHING
IC103 RVIBA338 TPS AMP
IC104 RVILA4505R POWER AMP

IC105 RVIBA328MR PHONO AMP
Q112,113 2SCI740 PRE AMP

LINE OUT L R 360mV J18

To SP JACK (Lch): WOOFER 10cm (4") PM DYNAMIC SPEAKER (3Ω); TWEETER 3cm (1¼") CERAMIC SPEAKER (400Ω)

To SP JACK (Rch): WOOFER 10cm (4") PM DYNAMIC SPEAKER (3Ω); TWEETER 3cm (1¼") CERAMIC SPEAKER (400Ω)

SP(L) J1, SP(R) J5, 3~8Ω

J6 32Ω HEADPHONES

Q132 2SA564 MUTING
Q134 2SCI740 MUTING

FUSE T2A (T1) J2 AC IN

J12 DC IN

D116~119 RVDISR35 RECT
D111,120,123 RVDISSI33 SWITCHING
Q131 2SD313 REGULATOR
Q135 2SC2001 REGULATOR

BATT. 12V (UM-1) X 8

Q107 2SCI740 PLAY SWITCHING
Q108 2SA564 PLAY SWITCHING
IC101 AN6205 EQ/MIC AMP

D124 RVDISSI33 SWITCHING
Q109,110 2SCI740 MIXING AMP
D125 RVDISSI33 SWITCHING
Q111,133 2SC2001 BEAT PROOF
Q114,115 2SC2001 BIAS OSC
D121 RVDTZ6R8 REGULATOR
Q127 2SCI740 REC SWITCHING
Q126 2SCI740 REGULATOR

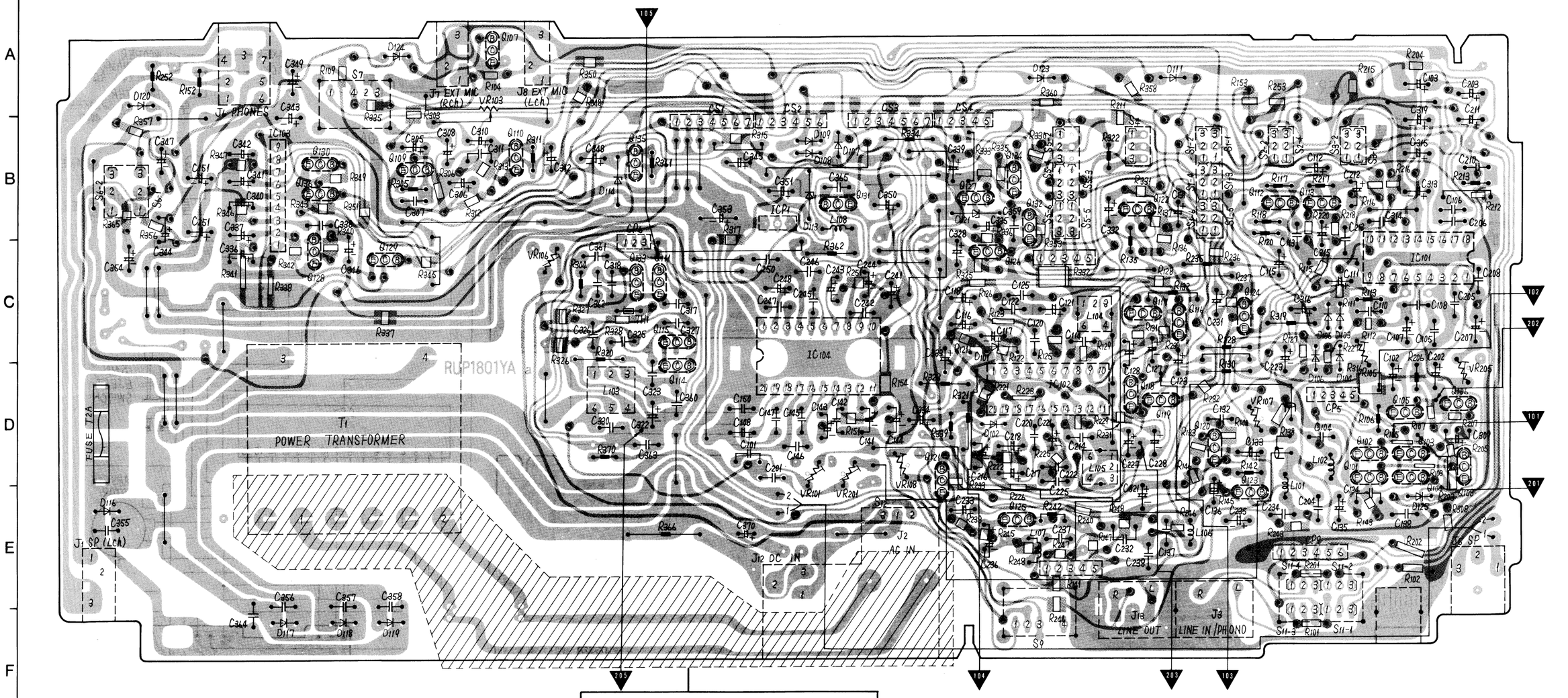
D113 RVDTZ10A REGULATOR
D114 RVDTZ5R6B REGULATOR

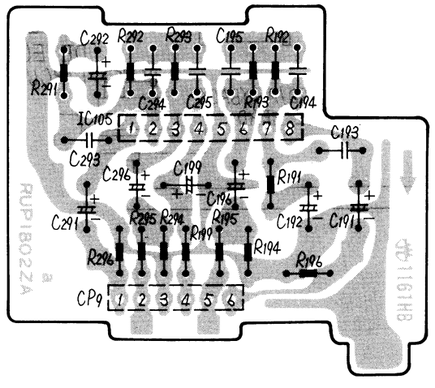
IC102 RVILM1131C

y ⚠ mark have
nportant for
hese
anufacturer's

+ B Voltage Line
Tape (PLAY BACK) Signal Line
Radio (FM) Signal Line
Recording control signal line
Tape (RECORD) signal line

CIRCUIT BOARD (Audio) MODEL RX-C52L

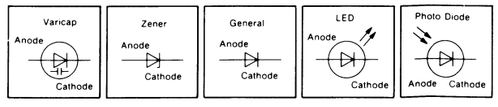


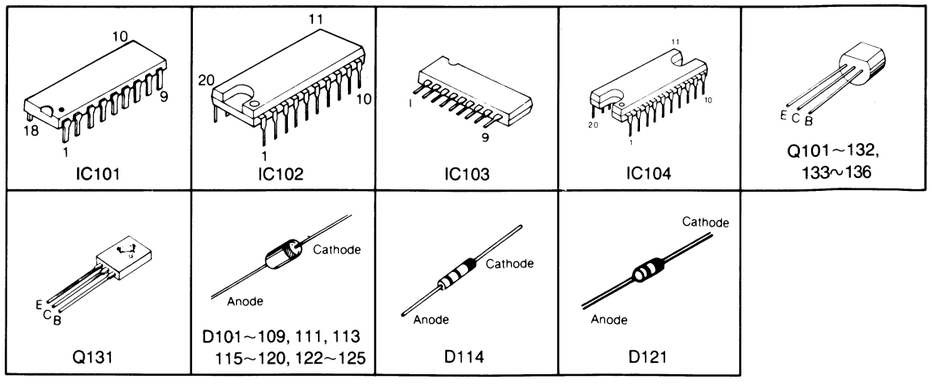


CAUTION
RISK OF ELECTRIC SHOCK
AC voltage line. Please do not touch this portion.

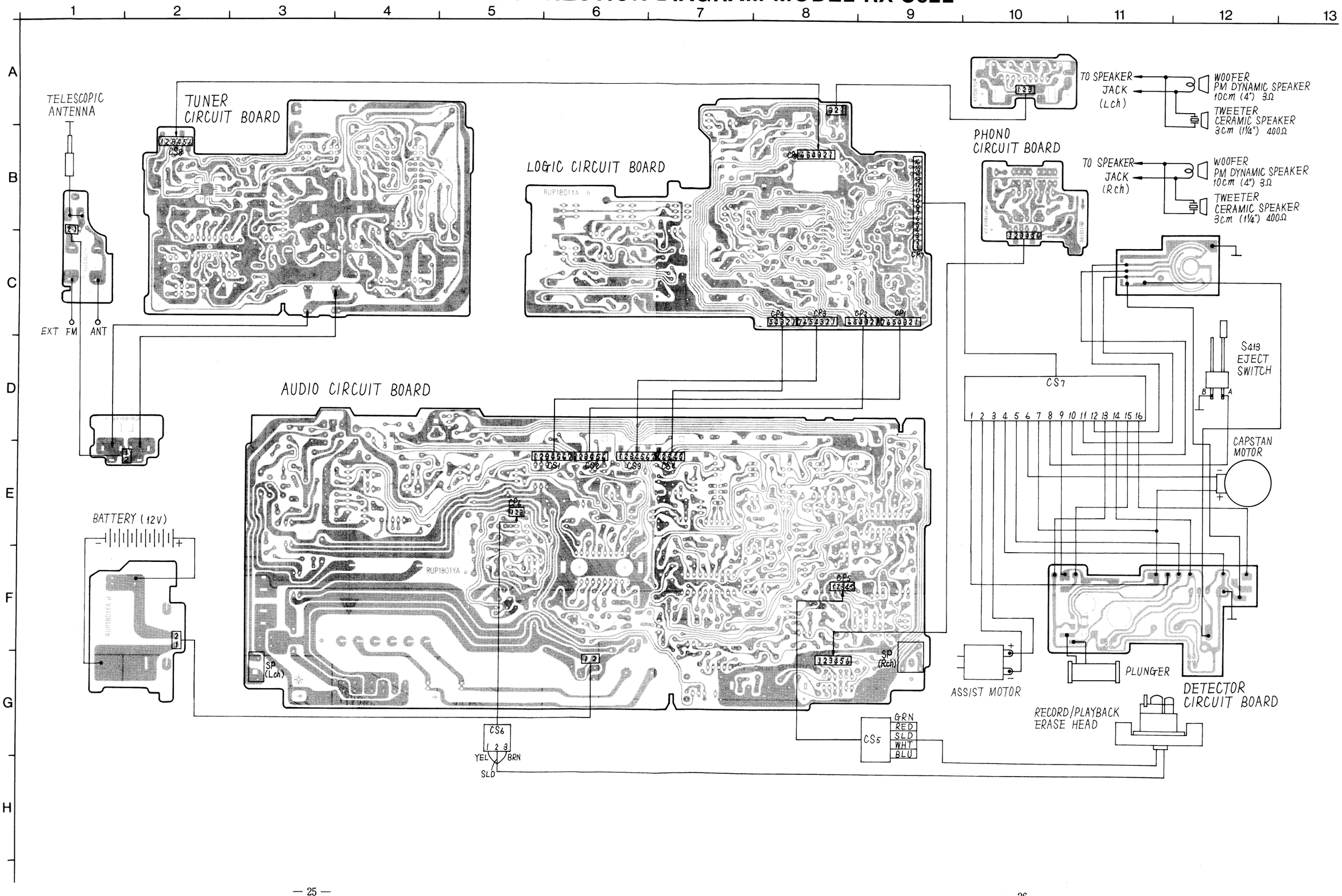
Notes:

1. The symbols ( ) shown in the circuit board indicate printed resistor.
2. The circuit shown in ( ) on the conductor indicates printed circuit on the back side of the printed circuit board.
3. The circuit shown in ( ) on the conductor indicates printed circuit on the front side of the printed circuit board.
4. The symbols (●) shown in the circuit board indicate connection points between conductors on the front side and back side of the circuit board.

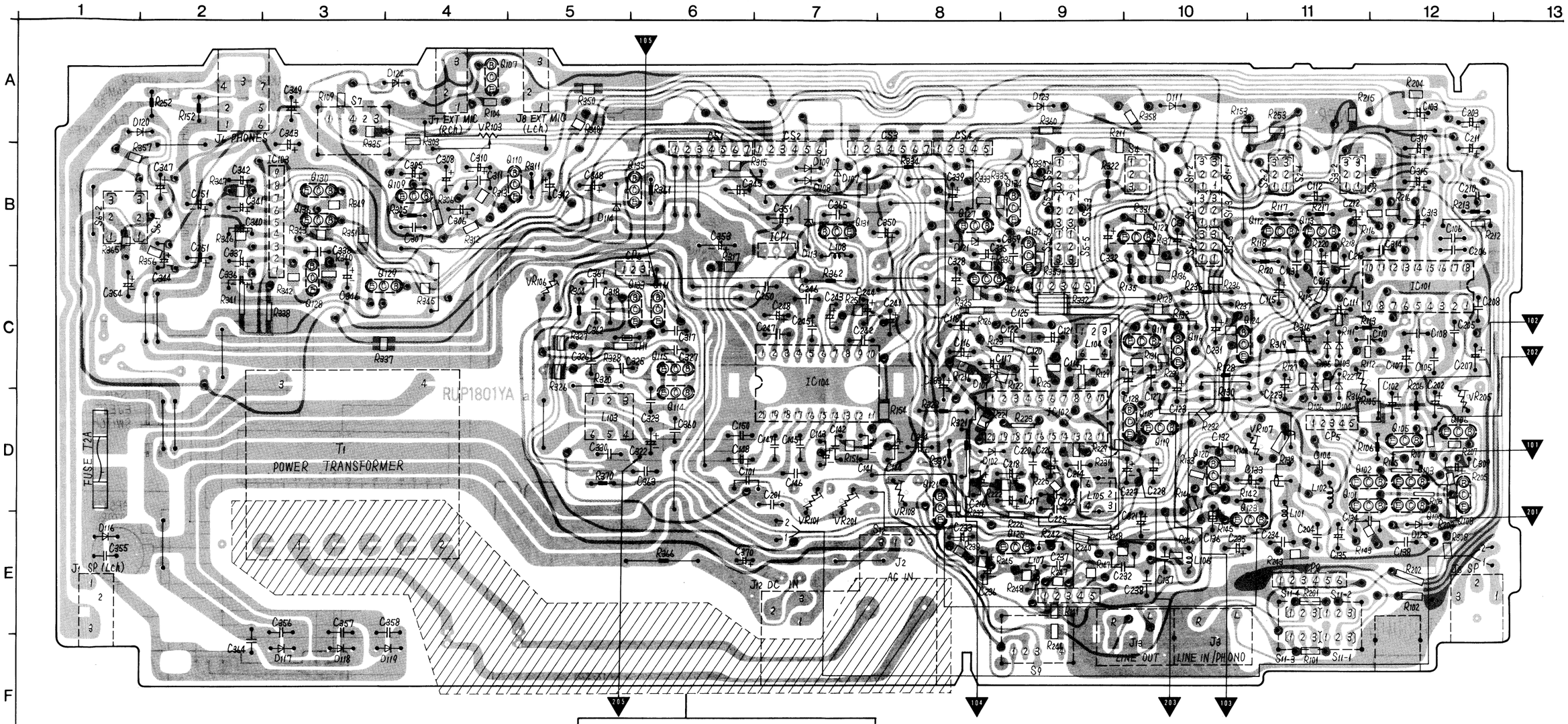


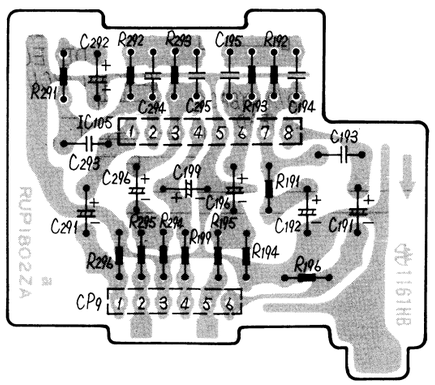


WIRING CONNECTION DIAGRAM MODEL RX-C52L



CIRCUIT BOARD (Audio) MODEL RX-C52L





CAUTION
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AC voltage line. Please do not touch this portion.

Notes:

1. The symbols ( ) shown in the circuit board indicate printed resistor.
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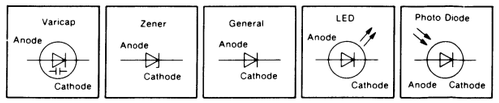
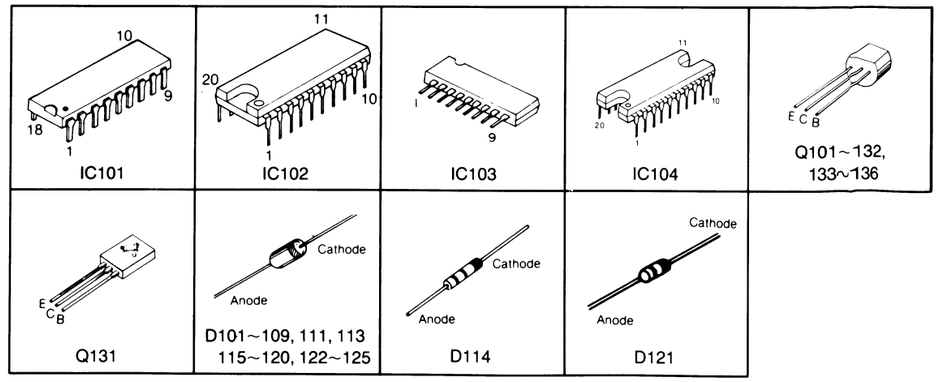
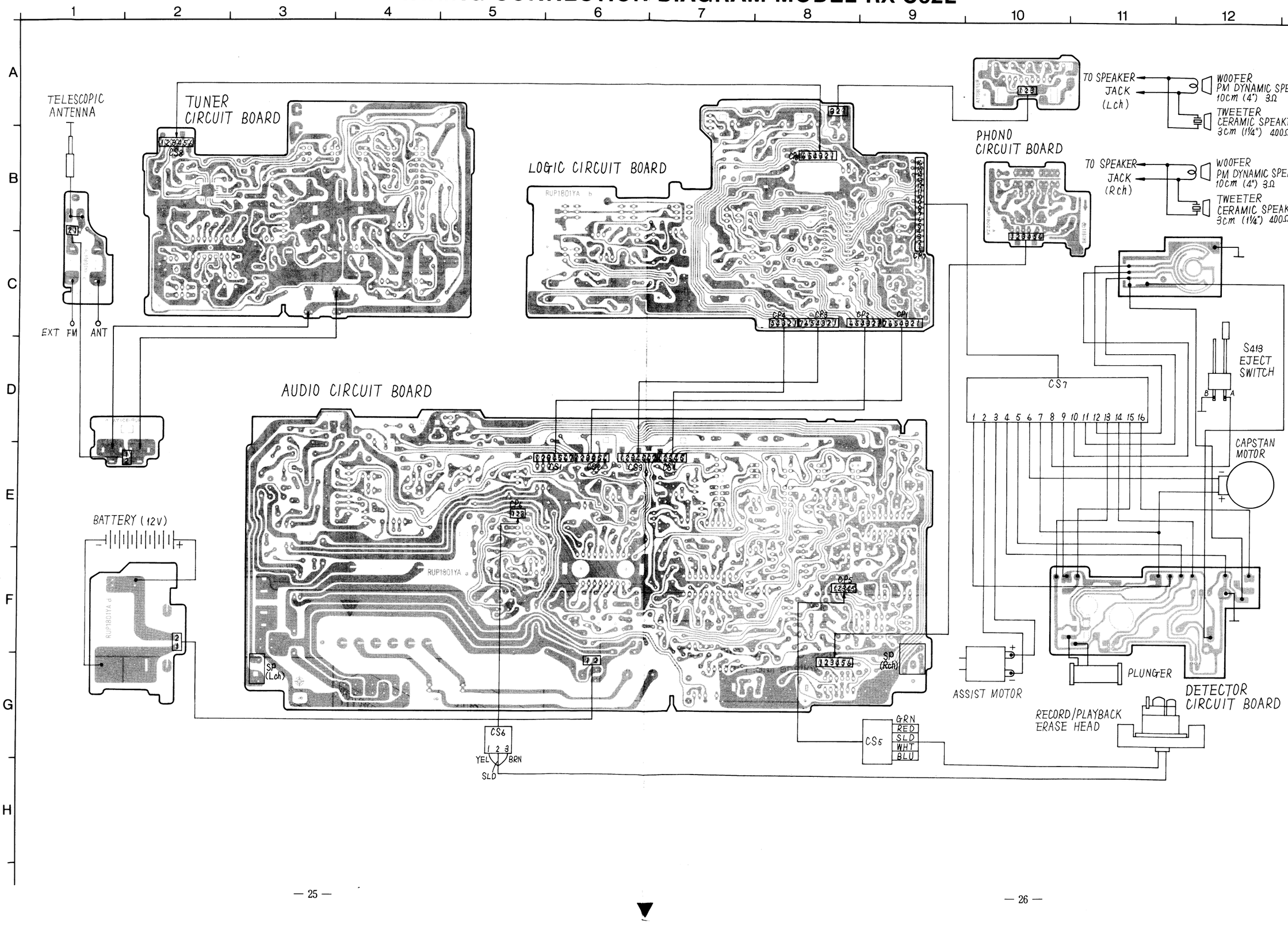
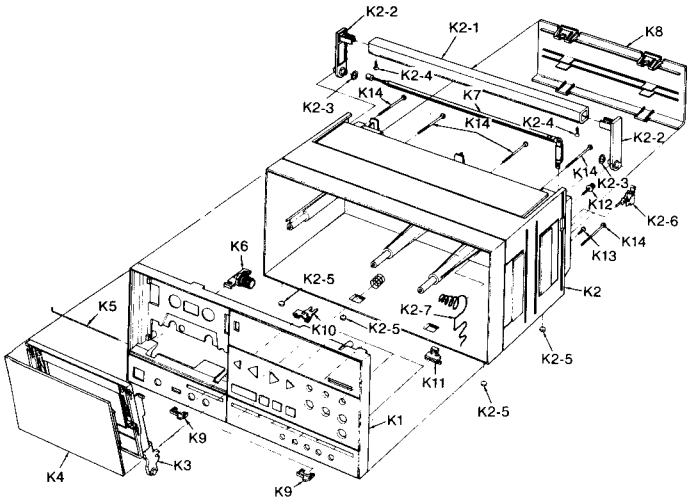


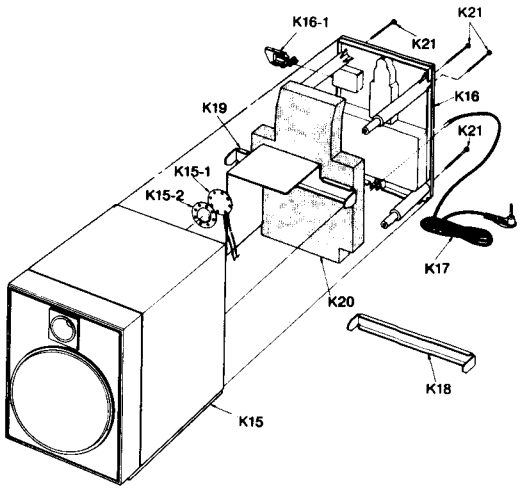


WIRING CONNECTION DIAGRAM MODEL RX-C52L



CABINET PARTS LOCATION





ELECTRICAL PARTS LOCATION

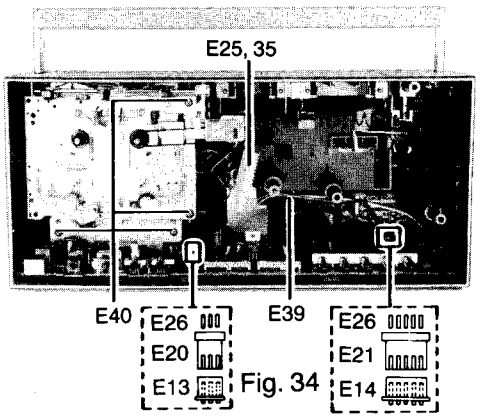
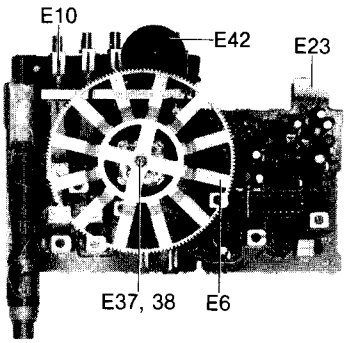
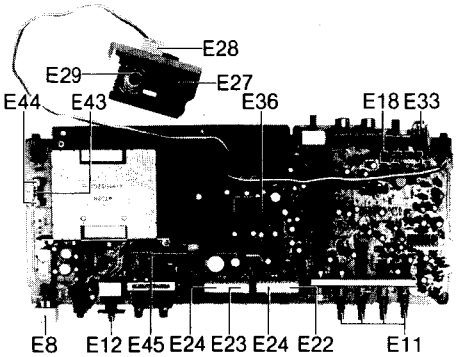
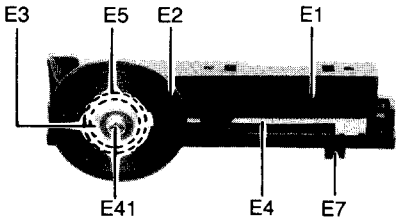
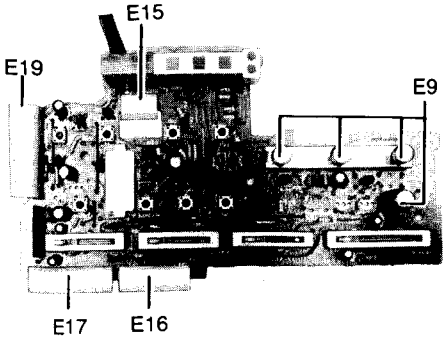


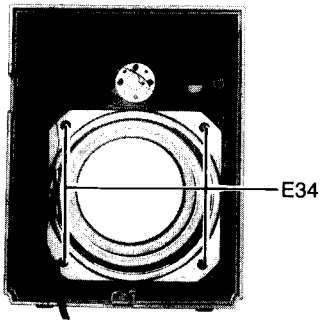
Fig. 34

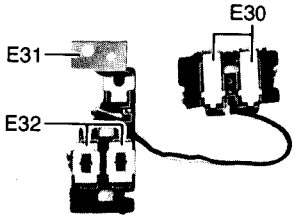




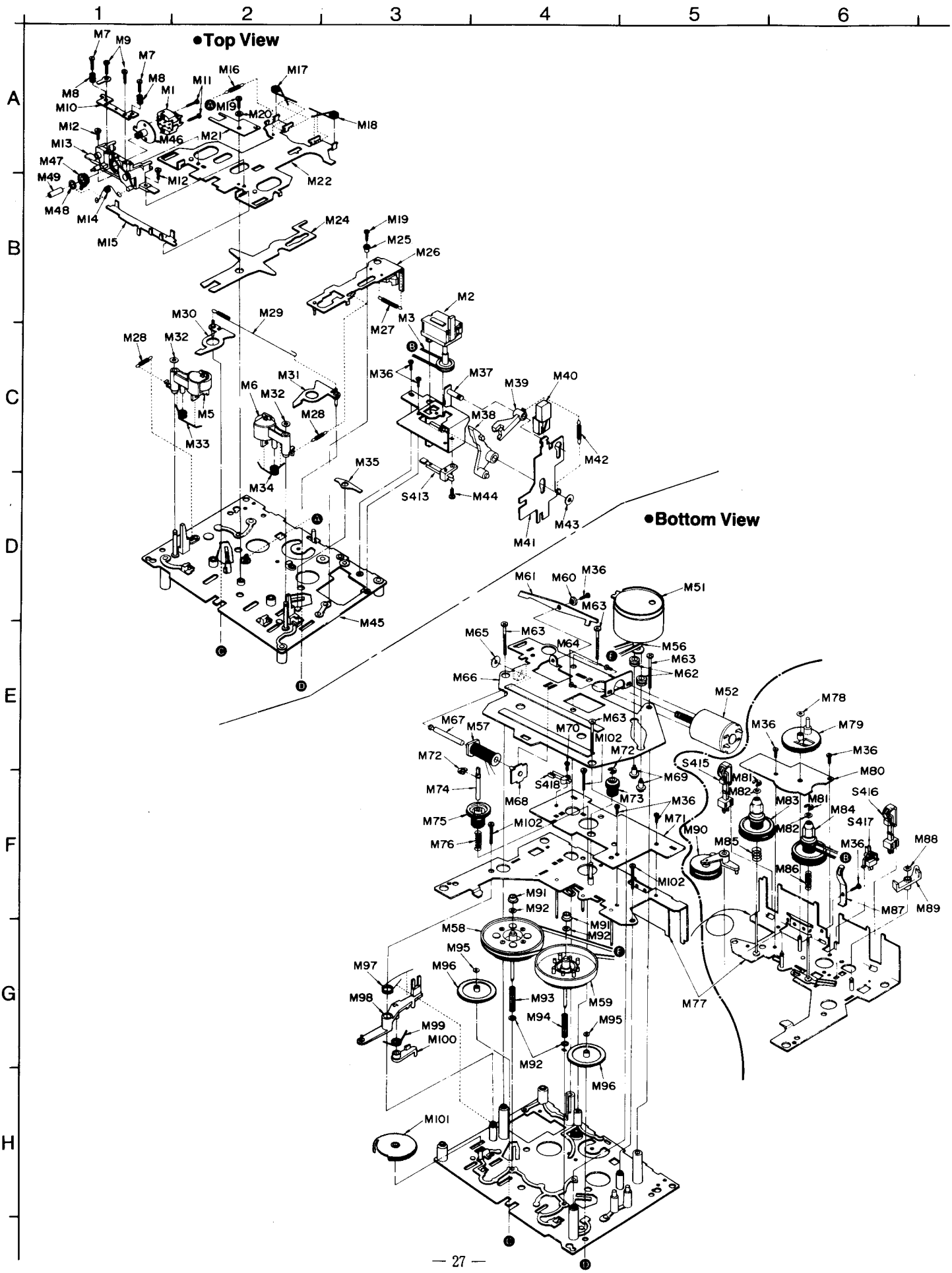








MECHANISM PARTS LOCATION



Ref. No.	Part No.	Part Name & Description	Per Set	
M84	RFJ36Z	Reel Table	1	
M85	RFS394Z	Spring, Reel Table	1	
M86	RFS395Z	Spring, Reel Table	1	
M87	RFS396Z	Spring, Cassette Pressure	1	
M88	RFN115Z	Snap Washer, FF/REW Arm	1	
M89	RFY363Z	FF/REW Arm	1	
M90	RFY364Z	Drive Arm Ass'y	1	
M91	RFV4Z	Flywheel Metal	2	
M92	RFN116Z	Nylon Washer, Flywheel Ass'y	2	
M93	RFS397Z	Spring, Flywheel Ass'y (A)	1	
M94	RFS398Z	Spring, Flywheel Ass'y (B)	1	
M95	RFN117Z	Snap Washer, Gear (C) M'tg	2	
M96	RFG58Z	Gear C	2	
M97	RFS399Z	Spring, Trigger Arm(A)	1	
M98	RFY365Z	Trigger Arm A	1	
M99	RFS400Z	Spring, Trigger Arm(B)	1	
M100	RFY366Z	Trigger Arm B	1	
M101	RFG59Z	Cam Gear	1	
M102	XSB2+14	Screw, Reel Table Chassis Ass'y etc. M'tg	3	
		INTEGRATED CIRCUITS,		
		TRANSISTORS AND DIODES		
IC1	RVITA7358P	IC	1	
IC2	AN7220A	IC	1	
IC3	RXRA1AB	IC	1	
IC101	AN6205	IC	1	
IC102	RVILM1131C	IC	1	
IC103	RVIBA338	IC	1	
IC104	RVILA4505R	IC	1	
IC105	RVIBA328MR	IC	1	
IC401	RVITC9310	IC	1	
IC402	RVITA7354P	IC	1	
IC403	RVIBA6154	IC	1	
Q1	2SC829-C	Transistor (Si)	1	S
Q101∿104	2SC1845E	Transistor (Si)	4	
Q105,106	2SC1788RDR1	Transistor (Si)	2	
Q107,110,112,113,116∿130,134,136	2SC1740R	Transistor (Si)	21	
Q108,132,401,406	2SA722∿S	Transistor (Si)	4	
Q109	2SC1740LNR	Transistor (Si)	1	
Q111,133	2SC945∿Q	Transistor (Si)	2	
Q114,115,402	2SC2001K1	Transistor (Si)	3	
Q131	2SD313E	Transistor (Si)	1	
Q403,409	2SC592NCR	Transistor (Si)	2	
Q404,405,409	2SC1740S	Transistor (Si)	3	
D1	RVDSD113	Diode (Si)	1	
D2,3,102∿109,111,120,123∿125,402,403,411	RVD1SS133	Diode (Si)	18	
D101	MA101	Diode (Si)	1	
D113	RVDTZ10A	Diode (Si)	1	
D114	RVDTZ5R6B	Diode (Si)	1	
D116∿119,401	RVD1SR35	Diode (Si)	6	
D121	RVDTZ6R8	Diode (Si)	1	
D404	RVDTZ13C	Diode (Si)	1	
D405∿408,412	MA175WK	Diode (Si)	5	
D415∿421	LN071182PH	LED (Ga)	7	
D422∿426	LN051181P	LED (Ga)	5	
		THERMISTOR		
Th1	RRT202	Thermistor	1	
		COILS AND TRANSFORMERS		
L1	RLD4Y44	Antenna Coil, FM	1	
L2	RLD4Y53	Oscillator Coil, FM	1	
L3	RLA3M63	Antenna Coil, SW	1	
L4,5	RLF6D154	Antenna Coil, MW,LW	1	

Ref. No.	Part No.	Part Name & Description	Per Set
L6	RL03M31	Oscillator Coil, SW	1
L7	RL02M14	Oscillator Coil, MW	1
L8	RL01M4	Oscillator Coil, LW	1
L101,102	RLQ2M473J	Choke Coil	2
L103	RL09C34	Oscillator Coil, Bias	1
L104,105	RLE5031	Trap	2
L106,107	RLQZ8221	Choke Coil	2
L401,402	RLQZB101K	Choke Coil	2
T1,3	RL14M101	IFT, FM	2
T2	RLI2M226	IFT, AM	1
T4 [ZS]	RLT5Z4G4A	Power Transformer	1
T4 [ES]	RLT5Z4E1A	Power Transformer	1
		VARIABLE RESISTORS	
VR1	RVNCAI4B3	Vari ble Resistor, Preset, 10kΩ (B)	1
VR101,107,108,201	RVNCA15B4	Variable Reistor, Preset, 100k (B)	4
VR103	EWALF5C10A14	Variable Resistor, 10kΩ (A)	1
VR105,205	RVNCA52B4	Variable Resistor, Preset, 500 (B)	2
VR106	RVNCA24B4	Variable Resistor, Preset, 20kΩ (B)	1
VR181,182,281,282	EWAMA7C10A5A	Variable Resistor, 50kΩ (A)	2
VR183,283	EWANAEC10B54	Variable Resistor, 50kΩ (B)	1
VR184	EWALF4C10G15	Variable Resistor, 100kΩ (G)	1
		VARIABLE CAPACITOR	
VC1∿4	RCV4RC2RA	Tuning Capacitor, W/Trimmer Capacitor (CT1∿4)	1
CT6,7	RCVPL10A	Trimmer Capacitor	2
CT5	RCVPL30A	Trimmer Capacitor	1
VC5	RCVMH60C8	Fine Tuning	1
		CERAMIC FILTERS	
CF1	RVF107MTWAZ	Ceramic Filter	1
CF2[ZS]	RVFSFZ455B	Ceramic Filter	1
CF2[ES]	QCRZZ470A7W	Ceramic Filter	1
		COMPONENT COMBINATION	
Z1	EXABPMB6A	Component Combination	1
		SPEAKER	
	EAS10P231SB	Speaker, 10cm(4"), 3Ω PM DYNAMIC	2
		SWITCHES	
SI∿5	RSHX056Y	Switch, Function, Dolby, Tape	1
S6	RSH2B23Y	Switch, Power	1
S7,9	RSS3A06Z	Switch, Timer Stand By 1 Beat Proof	2
S12 16	RSHX062Z	Switch, FM Mode	1
S11	RSS2D19Z	Switch, Phono, Line	1
S401∿408	RSH1A28Z	Switch, Stop, Rec Mute Pause etc.	8
S409∿411	RSHX054Z	Switch, Tape Direction	1
S412	RSH2B24V	Switch, One Program Repeat	1
S413	RFA45Z	Switch, Eject	1
S415,416	RFA46Z	Switch, Record Check	2
S417	RFA47Z	Switch, Sleep	1
S418	RFA48Z	Switch, FF/REW	1
		JACKS	
J1	RJJ1D28Y	Jack, Speaker, Left	1
J2,12 [ZS]	RJJ1F2Z	Jack, AC/DC	1
J2,12 [ES]	RJJ1F3Z	Jack, AC/DC	1
J3,13	RJF1091Z	Jack, Line	1
J5	QJA0172	Jack, Speaker, Right	1

■REPLACEMENT PARTS LIST····· RX-C52

Notes:

1. Important safety notice.
   Components identified by ⚠ mark have special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.
2. The S mark indicates service standard parts and may differ from production parts.
3. RESISTORS & CAPACITORS
   Unless otherwise specified.
   All resistors are in OHMS (Ω) K=1000Ω, M=1000kΩ
   All capacitors are in MICRO FARADS (μF) P=μμF

* Type & Wattage of Resister

Type

ERC:Solid	ERX:Metal Film	ERW:Wirewound Resister
ERD:Carbon	ERG:Metal Oxide	ERS:Fusible Resister
RRD:Chip	ERO:Metal Film	ERF:Cement Resister

Wattage

10,16:1/8W	14,25:1/4W	12:1/2W	1:1W	2:2W	3:3W

* Type & Voltage of Capacitor

Type

ECFW:Semi-conductor	ECCD,ECKD,ECBT:Ceramic
ECQS:Styrol	ECQM,ECQV,ECQG:Polyester
ECUX:Chip	ECEA,ECSZ :Electrolytic
ECMS:Mica	ECQP :Polypropylene

Voltage

ECQ Type	ECQG, ECQV, Type	ECSZ Type	Others	
1H: 50V	0,5: 50V	0F:3.15V	0J :6.3V	1H,1V,50: 50V
2A:100V	1:100V	1A:10V	1A :10V	1J : 63V
2E:500V	2:200V	1V:35V	1C :16V	2A :100V
2H:500V		0J:6.3V	1E,25:25V	

Ref.No.	Part No.	Part Name & Description	Per Set	
		MECHANICAL PARTS		
M1	RJH37T1Z	R/P, Erase Head	1	
M2	RSE104Z	Counter	1	
M3	QDB0288	Counter Belt	1	
M5	RFR19Z	Pinch Roller Ass'y, Left	1	
M6	RFP20Z	Pinch Roller Ass'y, Right	1	
M7	RFE138Z	Screw, Azimuth	2	
M8	RFS381Z	Spring, Azimuth	2	
M9	RFE140Z	Screw, Head Plate M'tg	2	
M10	RFD171Z	Head Plate	1	
M11	RFE139Z	Screw, R/P Erase Head M'tg	2	
M12	RFE141Z	Screw, Head Base Ass'y M'tg	2	
M13	RFE135Z	Head Base Ass'y	1	
M14	RFS382Z	Spring, Reverse	1	
M15	RFD172Z	Slider, Head Base Ass'y	1	
M16	RFS383Z	Spring, Head Base Ass'y	1	
M17	RFS384Z	Spring, Head Base Ass'y, Left	1	
M18	RFS385Z	Spring, Head Base Ass'y, Right	1	
M19	XSN2+6	Screw, FF/REW Lever M'tg	2	S
M20	XWG2	Washer, Spring M'tg	1	S
M21	RFS386Z	Spring, Head Base Ass'y	1	
M22	RFU30Z	Head Base Ass'y	1	
M24	RFY354Z	Reverse Lever	1	
M25	RFX86Z	Collar, FF/REW Lever	1	
M26	RFY355Z	FF/REW Lever	1	
M27	RFS387Z	Spring, FF/REW Lever	1	
M28	RFS388Z	Spring, Pinch Roller Ass'y	2	
M29	RFS389Z	Spring, Playback Arm Ass'y	1	
M30	RFY356Z	Playback Arm Ass'y, Left	1	
M31	RFY357Z	Playback Arm Ass'y, Right	1	
M32	RFN110Z	Snap Washer, Pinch Roller Ass'y M'tg	2	
M33	RFS390Z	Spring, Pinch Roller Ass'y, Left	1	
M34	RFS391Z	Spring, Pinch Roller Ass'y, Right	1	
M35	RFY358Z	Cue Arm	1	
M36	XSN2+5	Screw, Counter Bracket etc. M'tg	8	S
M37	RFD173Z	Bracket, Counter M'tg	1	
M38	RFY359Z	Cassette Eject Arm A	1	
M39	RFY360Z	Cassette Eject Arm B	1	
M40	RBC538Z	Cassette Eject Buttom	1	
M41	RFY361Z	Cassette Eject Rod	1	
M42	RFS392Z	Spring, Cassette Eject Rod	1	
M43	RFN111Z	Snap Washer, Cassette Eject Rod M'tg	1	
M44	XSN26+5	Screw, Cassette Eject Switch M'tg	1	S
M45	RFU31Z	Chassis Plate Ass'y	1	
M46	RFD176Z	Bracket, R/P Erase Head M'tg	1	
M47	RFG60Z	Head, Reverse	1	
M48	RFN118Z	Snap Washer	1	
M49	RFE143Z	Tube, Lead Wire	1	
M51	RFM39Z	Motor Ass'y, Pulley	1	
M52	RFM29Z	Assist Motor Ass'y, Gear M'tg	1	
M56	RFB41Z	Main Belt	1	
M57	RFP11Z	Solenoid	1	
M58	RFF27Z	Flywheel Ass'y A	1	
M59	RFF28Z	Flywheel Ass'y B	1	
M60	RFX87Z	Collar, Cassette Eject Lever	1	
M61	RFY362Z	Cassette Eject Lever	1	
M62	RFI24Z	Rubber Cushion, Motor Ass'y	2	
M63	XSB26+25	Screw, Motor Bracket M'tg	4	
M64	XSN2+2	Screw, Assist Motor Ass'y M'tg	2	
M65	RFN112Z	Snap Washer, Solenoid M'tg	1	
M66	RFD174Z	Bracket, Motor Ass'y	1	
M67	RFE136Z	Shaft, Solenoid	1	
M68	RFD175Z	Bracket Ass'y, Solenoid	1	
M69	RFE142Z	Screw, Motor Ass'y M'tg	2	
M70	XSN17+6	Screw, FF/REW Leaf Switch M'tg	1	
M71	RFT10Z	Circuit Board, Rotary Switch	1	
M72	XUC25FT	E Ring, Gear A, B M'tg	2	S
M73	RFG55Z	Gear A	1	
M74	RFE137Z	Shaft, Gear B	1	
M75	RFG56Z	Gear B	1	
M76	RFS393Z	Spring, Gear B	1	
M77	RFU32Z	Reel Table Chassis Ass'y	1	
M78	RFN113Z	Snap Washer, Assist Gear M'tg	1	
M79	RFG57Z	Assist Gear	1	
M80	RFT11Z	Circuit Board, Rotary Switch	1	
M81	XUC15FT	E Ring, Reel Table M'tg	2	S
M82	RFN114Z	Nylon Washer, Reel Table	2	
M83	RFJ35Z	Reel Table	1	

Ref. No.	Part No.	Value
	RESISTORS	
R1	ERDS2TJ392	3.9K
R13	ERDS2TJ472	4.7K
R19	ERDS2TJ822	8.2K
R21	ERDS2TJ330	33
R106	ERDS2TJ100	10
R113	ERDS2TJ104	100K
R117	ERDS2TJ684	680K
R118	ERDS2TJ272	2.7K
R120	ERDS2TJ331	330
R130	ERD25FJ103	10K
R132	ERD25FJ103	10K
R135	ERDS2TJ472	4.7K
R142	ERDS2TJ684	680K
R152	ERDS2TJ101	100
R191	ERDS2TJ471	470
R192	ERDS2TJ103	10K
R193	ERDS2TJ104	100K
R194	ERDS2TJ393	39K
R195	ERDS2TJ333	33K
R196	ERDS2TJ683	68K
R199	ERDS2TJ100	10
R206	ERD25FJ100	10
R213	ERDS2TJ104	100K
R217	ERDS2TJ684	680K
R228	ERD25FJ103	10K
R235	ERD25FJ472	4.7K
R242	ERDS2TJ684	680K
R252	ERDS2TJ101	100
R291	ERDS2TJ471	470
R292	ERDS2TJ103	10K
R293	ERDS2TJ104	100K
R294	ERDS2TJ393	39K
R295	ERDS2TJ333	33K
R296	ERDS2TJ683	68K
R304	ERDS2TJ1R0	1
R305	ERDS2TJ474	470K
R311	ERDS2TJ274	270K
R319	ERD25TJ106	10M
R320	ERD25FJ4R7	4.7
R321	ERDS1TJ151	150
R322	ERDS2TJ681	680
R323	ERD25FJ100	10
R334	ERD25FJ151	150
R339	ERDS2TJ331	330
R361	ERDS2TJ331	330
R362	ERDS1TJ681	680
R366	ERX1ANJPR47	0.47
R370	ERDS2TJ3R3	3.3
R423	ERG1ANJ331	330
R426	ERD25FJ102	1K
R427	ERDS2TJ103	10K
R429	ERG2ANJ101	100
R442	ERD25FJ470	47
	CAPACITORS	
C1	ECCD1H200JC	20
C2	ECKD1H103MD	0.01
C3	ECCD1H040C	4
C4	ECCD1H120KC	12
C5	ECCD1H150KC	15
C6	ECCD1H100KC	10
C7	ECKD1H102MD	0.001
C8	ECEA1HUR22	0.22
C9	ECKD1H102MD	0.001
C10	ECKD1H103MD	0.01
C11	ECFT1E223MD	0.022
C12	ECCD1H470K	47
C13	ECFT1E223MD	0.022
C14	ECFT1E473MD	0.047
C15	ECCD1H330K	33
C16	ECEA0JK470	47
C17	ECEA1CU100	10
C18	ECKD1H223ZF	0.022
C19	ECFT1E223MD	0.022
C20	ECEA1HU0R1	0.1
C21	ECEA1CU101	100
C22	ECFT1E223MD	0.022
C23	ECKD1H471KB	470
C24	ECEA1HU010	10
C25	ECEA0JU470	47
C26	ECQP2A102JZ	0.01
C27	ECEA1HUR47	0.47
C28	ECEA1HUR47	0.47
C29	ECEA1HU010	10
C30	ECEA0JU470	47
C32	ECFT1E223MD	0.022
C34	ECFT1E223MD	0.022
C36	ECKD1H102MD	0.01
C37	ECCD1H150KC	15P
C38	ECCD1H331K	330P
C39	ECCD1H331K	330P
C40	ECCD1H331K	330P
C43	ECCD1H331K	330P
C44	ECEA1HUR22	0.22
C45	ECCD1H120KC	12P
C46	ECCD1H150KC	15P
C49	ECCD1H100KC	10P
C50	ECCD1H330K	33P
C51	ECCD1H120KC	12P
C52	ECCD1H050C	5P
C53	ECCD1H120KC	12P
C54	ECCD1H020C	2P
C55	ECQP2A392JZ	3900P
C56	ECQP2A361JZ	390P
C57	ECQP2A221JZ	220P
C58	ECQP2A252JZ	150P
C59	ECKD1H103MD	0.01
C101	ECCD1H221K	220P
C102	ECEA1HU010	1
C103	ECEA1HK010	1
C104	ECCD1H101K	100P
C105	ECKD1H821KB	820P
C106	ECKD1H102ZF	0.001
C107	ECEA0JU101	100
C108	ECCD1H151K	150P
C110	ECFT1E333KD	0.033
C111	ECEA1CU100	10
C112	ECEA1HUR47	0.47
C113	ECCD1H101K	100P
C114	ECFT1E332KD	0.0033
C115	ECEA1HU010	1
C116	ECEA1CU100	10
C117	ECEA1HU0R1	0.1
C118	ECEA1HUR33	0.33
C120	ECFT1E473KD	0.047
C121	ECEA1CU100	10
C122	ECFT1E472KD	0.0047
C123	ECEA1HUR33	0.33
C125	ECFT1E333KD	0.033
C127	ECEA1EU4R7	4.7
C128	ECEA1EU4R7	4.7
C131	ECEA1HU010	1
C132	ECFT1E473MD	0.047
C133	ECEA1HU010	1
C134	ECKD1H102MD	0.001
C135	ECEA1HUR33	0.33
C136	ECEA1CU100	10
C137	ECQV1H153JZ	0.015
C138	ECKD1H222MD	0.0022
C141	ECEA0JU101	100
C142	ECKD1H102MD	0.001
C143	ECEA0JU101	100
C144	ECEA1HU010	1
C145	ECCD1H470K	47P
C146	ECCD1H070D	7P
C147	ECFT1E103MD	0.01
C148	ECEA1AU101	100
C150	ECQV1H224JZ	0.22
C151	ECEA1AU102	0.001
C181	ECFT1E223MD	0.022
C182	ECEA1HKR22	0.22
C183	ECKD1H332MD	0.0033
C184	ECFT1E333MD	0.033
C185	ECKD1H152MD	0.0015
C186	ECEA1HKR22	0.22
C191	ECEA1CU100	10
C192	ECEA0JU470	47
C193	ECKD1H471KB	470P
C194	ECFT1E103MP	0.01
C195	ECFT1E333MD	0.033
C196	ECEA1EU4R7	4.7
C199	ECEA1AU101	100
C201	ECCD1H221K	220P
C202	ECEA1HU010	1
C203	ECEA1HK010	1
C204	ECCD1H101K	100P
C205	ECKD1H821KB	820P
C206	ECKD1H102ZF	0.001
C207	ECEA0JU101	100
C208	ECCD1H151K	150P
C210	ECFT1E333KD	0.033
C211	ECEA1CK100	10
C212	ECEA1HUR47	0.47
C213	ECCD1H101K	100P
C214	ECFT1E332KD	0.0033
C215	ECEA1HU010	1
C216	ECEA1CU100	10
C217	ECEA1HU0R1	0.1
C218	ECEA1HUR33	0.33
C220	ECFT1E473KD	0.047
C221	ECEA1CU100	10
C222	ECFT1E472KD	0.0047
C223	ECEA1HUR33	0.33
C225	ECFT1E333KD	0.033
C227	ECEA1EU4R7	4.7
C228	ECEA1EU4R7	4.7
C231	ECEA1HU010	1
C232	ECFT1E473MD	0.047
C233	ECEA1HU010	1
C234	ECKD1H102MD	0.001
C235	ECEA1HUR33	0.33
C236	ECEA1CU100	10
C237	ECQV1H153JZ	0.015
C238	ECKD1H222MD	0.0022
C241	ECEA1EU101	100
C242	ECKD1H102MD	0.01
C243	ECEA0JU101	100
C244	ECEA1HU010	1
C245	ECCD1H470K	47P
C246	ECCD1H070D	7P
C247	ECFT1E103MD	0.01
C248	ECEA1AU101	100
C250	ECQV1H224JZ	0.22
C251	ECEA1AU102	0.001
C281	ECFT1E223MD	0.022
C282	ECEA1HKR22	0.22
C283	ECFT1E333MD	0.033
C285	ECKD1H152MD	0.0015
C286	ECEA1HKR22	0.22
C291	ECEA1CU100	10
C292	ECEA0JU470	47
C293	ECKD1H471KB	470P
C294	ECFT1E103MD	0.01
C295	ECFT1E333MD	0.033
C296	ECEA1EU4R7	4.7
C305	ECEA1HK010	1
C306	ECEA1AU101	100
C307	ECKD1H471KB	470P
C308	ECEA1HU010	1
C309	ECEA0JU101	100
C310	ECEA1HK010	1
C311	ECKD1H472MD	0.0047
C312	ECEA1EU4R7	4.7
C313	ECEA0JU101	100
C314	ECCD1H151K	150P
C315	ELEA1AU471	470
C316	ECEA1CU100	10
C317	ECKD1H103ZF	0.01
C318	ECKD1H103ZF	0.01
C319	ECEA0KL470	48
C321	ECEA1AU101	100
C322	ECEA1AU221	220
C323	ECKD1H103MD	0.01
C325	ECKD1H222MD	0.0022
C326	ECKD1H222MD	0.0022
C327	ECKD1H472MD	0.0047
C328	ECEA0JU101	100
C330	ECQP2A153JZ	0.015
C332	ECEA0JU101	100
C333	ECEA1AU221	220
C334	ECEA1AU102	0.001
C335	ECEA1AU470	47
C336	ECEA1HU010	1
C337	ECEA1CU100	10
C338	ECFT1E333MD	0.033
C339	ECEA0JU330	33
C340	ECEA1HU010	1
C341	ECEA1CU100	10
C342	ECEA1CU100	10
C343	ECEA1CU100	10
C344	ECEA0JU470	47
C345	ECEA0JU221	220
C346	ECEA1HU010	1
C347	ECEA1CU220	22
C348	ECEA0JU101	100
C349	ECEA0JU330	33
C350	ECEA1AU221	220
C351	ECEA1CU221	220
C353	ECEA1EU332	3300
C354	ECEA1EU100	10
C355	ECKD1H223ZF	0.022
C356	ECKD1H223ZF	0.022
C357	ECKD1H223ZF	0.022
C358	ECKD1H223ZF	0.022
C359	ECKD1H223ZF	0.022
C360	ECKD1H222MD	0.0022
C361	ECFT1E153KD	0.015
C362	ECQV1H473JZ	0.047
C363	ECQV1H393JZ	0.039
C364	ECKD1H223ZF	0.022
C365	ECKD1H103MD	0.01
C401	ECEA1HU2R2	2.2
C402	ECEA0JU221	220
C403	ECQV1H332JZ	0.0033
C404	ECEA1CU100	10
C406	ECEA1CU100	10
C407	ECEA1CU100	10
C408	ECEA1CU100	10
C410	ECEA1HU2R2	2.2
C411	ECEA1EU101	100
C412	ECSF1AE106	10
C413	ECCD1H101K	100P
C414	ECCD1H221K	220P
C415	ECEA1EF470	47

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Ref. No.	Part No.	Part Name & Description	Per Set
J6	RJJ1D27Z	Jack, Headphone	1
J7,8	RJJ1D20Y	Jack, Microphone	2
		CABINET PARTS	
K1 [ZS]	RYM1XC52LZ	Front Cabinet Ass'y	1
K1 [ES]	RYMIXC52LZE	Front Cabinet Ass'y	1
K1-1	RDS3141Z	Spring, Button	1
K2 [ZS]	RYF1XC52LZ91	Rear Cabinet Ass'y	1
K2 [ES]	RYF1XC52LE91	Rear Cabinet Ass'y	1
K2-1	RKX294ZZ	Handle	1
K2-2	RKX255Y	Arm, Handle	2
K2-3	RNW591Y	Washer, Handle	2
K2-4	XTC3+10CFN	Screw, Handle	2
K2-5	RHG338Z	Rubber Leg	2
R2-6	RJF1065Z	Terminal, EXT Antenna	2
R2-7	RJC336Z	Spring, Battery +,- Side	1
K3	RYQXC52N	Cassette Holder Ass'y	1
K3	RYPXC52LZ	Cassette Panel Ass'y	1
K5	RUS556Z	Spring, Cassette Holder	1
R6	RDG5728Z	Dumper Gear, Cassette Holder	1
R7	XEARR225EAY	Telescopic Antenna	1
K8	RKK234Z92	Battery Cover	1
K9	RBD237Z	Knob Mixing Level Bass etc.	5
K10	RHR1229Z	Holder, Mixing Level Knob	1
R11	RHR1228Z	Holder, Base, Trable etc. Knob	4
K12	XYN3+F12FN	Screw, Telescopic Antenna M'tg	1
K13	XTB3+16CFN	Screw, Line Jack M'tg	1
K14	XTV3+40G	Screw, Front Cabinet M'tg	6
K15	RYM2XC52M91	Speaker Box Left Ass'y	1
K15	RYM3XC52M91	Speaker Box Right Ass'y	1
K15-1	EFBS16C41HA1	Speaker, Treble 400Ω	2
K15-2	RME347Z	Speaker Dorm, Treble Speaker	2
K16	RYF2XC52M91	Speaker Box Cover Left Ass'y, Silver	1
K16	RYF3XC52M91	Speaker Box Cover Right Ass'y, Silver	1
K16-1	RGE75Y	Stopper, Speaker Box, Left	1
K16-1	RGE75Z	Stopper, Speaker Box, Right	1
K17	RJP0F2Z	Plug Cord, Speaker Left, Right	
K18	RUL709Z	Bracket, Speaker Box Left	1
K19	RUL708Z	Bracket, Speaker Box Right	1
K20	RHS595Z	Cloth, Buffer	2
K21	XTN3+30C	Screw, Speaker Box Cover M'tg, L/R	8
		ELECTRICAL PARTS	
E1	RUA569Z	Dial Chassis	1
E2	RBT182Z	Knob, Tuning	1
E3	RDG5727Z	Knob Gear, Tuning	1
E4	RDE137Z	Luck, Knob Gear	1
E5	RUS548Z	Spring, Tuning Knob Gear	1
E6	RDG5712Z	Drum Gear	1
E7	RDF886Z	Pointer, Dial	1
E8	RBC534Z	Button, Operation Switch	1
E9	RBC536Z	Button, Tape Direction etc.	4
E10	RBC537Z	Button, Band Selector Switch	5
E11	RYTXC52N	Button Ass'y, Dolby NR	5
E12	RBD238Z	Knob, Timer	1
E13	RJP3G10Z	Plug, 3 Pin, CP6	

Ref. No.	Part No.	Part Name & Description	Per Set
E14	RJP5G10Z	Plug, 5 Pin, CP5	1
E15	EJP6G3Z	Plug, 6 Pin, CP8	1
E16	RJP12G3Z	Plug, 12 Pin, CP3,4	1
E17	RJP13G3Z	Plug, 13 Pin, CP1,2	2
E18	RJT785ZA	Plug, 6 Pin, CP9	1
E19	RJP16G3Z	Plug, 16 Pin, CP7	1
E20	RJS3L4Z	Socket, 3 Pin, CS6	1
E21	RJS5L4Z	Socket, 5 Pin, CS5	1
E22	RJS5M1Z	Socket, 5 Pin, CS4	1
E23	RJS6M1Z	Socket, 6 Pin, CS2,8	2
E24	RJS7M1Z	Socket, 7 Pin, CS1,3	2
E25	RWR4003A23	Socket, 16 Pin, CS7	1
E26	RJT807Z	Terminal, Socket	8
E27	RUP1801Y	Circuit Board, Battery	1
E28	RUV709Z	Cover, Battery	1
E29	RJC511Z	Spring, Battery - Side	1
E30	RJT833Z	Terminal Antenna	2
E31	RJT848 Z	Terminal, Telescopic Antenna	1
E32	RJT849Z	Terminal, EXT Antenna	2
E33	RJF1095Z	Terminal, Earth	1
E34	XTV3+8G	Screw, Speaker M'tg	8
E35	RJT462Z	Terminal, Socket	16
E36	XTV3+8BFN	Screw, IC Heat Sink M'tg	2
E37	XSN26+6	Screw, Drum Gear M'tg	1 S
E38	XWA26B	Washer, Drum Gear M'tg	1 S
E39	XTV3+12G	Screw, Circuit Board M'tg	1
E40	XTV3+25G	Screw, Power Transformer etc. M'tg	4
E41	XTWS3+10Q	Screw, Tuning Knob Gear M'tg	1
E42	RBT183Z	Knob Fine Tunign	1
E43	XBA2C20TR0	Fuse	1
E44	QTF1054	Terminal, Fuse	2
E45	RAHF10WHF	IC Protector	1
		ACCESSORY	
[ZS] ⚠	RJA20Z	Power Cord, AC	1
[ES] ⚠	RJA43Z	Power Cord, AC	1
		PACKING MATERIALS	
	XZB60X50A04	Polyethylene Cover	1 Z
	RPN19458Z	Pad Complete	1
	RPK1875Z	Gift Box	1
	RPH439Z	Soft Sheet	1
		PRINTED MATERIALS	
	RQX4476Z	Instruction Book	1